WESTERN BIRDS

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WESTERN BIRDS

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WESTERN BIRDS

Volume 10, Number 4, 1979

THIRD REPORT OF THE CALIFORNIA BIRD RECORDS COMMITTEE

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The California Bird Records Committee is moving with enthusiasm and dedication. Records reviewed by the committee through 1974 were reported by Winter (West. Birds 4:101-106, 1973) and Winter and McCaskie (West. Birds 6:135-144, 1975). The number of reports submitted has been increasing the last 2 years. Continue to be patient and helpful as you make the committee a success by your participation. We need your detailed observations and photographs of the species presently on the review list.

The last 2 years have seen numerous changes in the committee. Jon Winter retired as secretary after many years organizing and developing the committee. John Luther is your new secretary. Bylaws have been drafted, debated, approved and published (West. Birds 8:161-165, 1977) by the committee in the hope that you will better understand our operations. The major change is a rotating system for committee members, with no person serving on the committee for more than 6 consecutive years. Present members are David DeSante, Jon Dunn, Richard Erickson, Kimball Garrett, Lee Jones, Paul Lehman, John Luther (Secretary), Benjamin D. Parmeter, Arnold Small and Philip Unitt. Laurence C. Binford, Eugene A. Cardiff, Ted Chandik, Alan Craig, Pierre Devillers, Clifford Lyons, Guy McCaskie, Richard Stallcup, G. Shumway Suffel and Jon Winter are to be thanked and commended for firmly establishing the committee by their years of dedicated service as it was developing.

Some of the species included in this report are no longer being reviewed by this committee. Because these reports were received

before the revised list was published, the committee reviewed them. The list of species the committee presently considers is shown below. In addition, the committee reviews all species that would be new to California.

Yellow-billed Loon, Least Grebe, Wandering Albatross, Short-tailed Albatross, Layson Albatross, Streaked Shearwater, Scaled Petrel, Galapagos Storm-Petrel, Wilson's Storm-Petrel, White-tailed Tropicbird, Masked (Blue-faced) Booby, Brown Booby, Red-footed Booby, Olivaceous Cormorant, Reddish Egret, Yellow-crowned Night Heron, White Ibis, Bewick's Swan, Trumpeter Swan, Emperor Goose, Black-bellied Whistling-Duck, Baikal Teal, Garganey, Tufted Duck, King Eider, Mississippi Kite, Zone-tailed Hawk, Harris' Hawk, Gyrfalcon, Sharp-tailed Grouse, Yellow Rail, Purple Gallinule, American Oystercatcher, Piping Plover, Wilson's Plover, Dotterel, European Jacksnipe, Upland Sandpiper, Sharp-tailed Sandpiper, White-rumped Sandpiper, Rufous-necked Sandpiper, Curlew Sandpiper, Semipalmated Sandpiper, Buff-breasted Sandpiper, Bar-tailed Godwit, Hudsonian Godwit, Ruff, Lesser Black-backed Gull, Black-headed Gull, Little Gull, Thick-billed Murre, Parakeet Auklet, Black-billed Cuckoo, Groove-billed Ani, Snowy Owl, Blue-throated Hummingbird, Violet-crowned Hummingbird, Broad-billed Hummingbird, Red-headed Woodpecker, Thick-billed Kingbird, Sulphur-bellied Flycatcher, Great Crested Flycatcher, Olivaceous Flycatcher, Least Flycatcher, Coues' Flycatcher, Eastern Wood Pewee, Blue Jay, Gray Catbird, Curve-billed Thrasher, Rufous-backed Robin, Wood Thrush, Gray-cheeked Thrush, Veery, Wheatear, White Wagtail, Red-throated Pipit, Sprague's Pipit, White-eyed Vireo, Yellow-throated Vireo, Yellow-green Vireo, Philadelphia Vireo, Prothonotary Warbler, Worm-eating Warbler, Golden-winged Warbler, Blue-winged Warbler, Golden-cheeked Warbler, Cerulean Warbler, Yellow-throated Warbler, Grace's Warbler, Pine Warbler, Louisiana Waterthrush, Kentucky Warbler, Connecticut Warbler, Mourning Warbler, Red-faced Warbler, Streak-backed (Scarlet-headed) Oriole, Common Grackle, Scarlet Tanager, Pyrrhuloxia, Varied Bunting, Painted Bunting, Black Rosy Finch, Common Redpoll, Baird's Sparrow, Le Conte's Sparrow, Sharp-tailed Sparrow, Cassin's Sparrow, Field Sparrow, Snow Bunting.

The following records are presented in phylogenetic order regardless of the year of observation or the year received by the committee. We believe this will aid the reader in reviewing records of particular species. Comments on the usefulness of such a sequence or suggestions for a different reporting system would be appreciated. The file number assigned to each record is given in parentheses. All records are on file with the committee secretary and are available for examination by interested persons. The initials of the observers who submitted the record follow each accepted record. Only those observers submitting written reports or photographs are indicated. If the person or persons finding a bird submitted a report, their initials are given first. Other observers submitting reports are indicated in alphabetical order. In those few cases where no observer of the bird submitted a report but another individual gathered the evidence and reported it (such as the Wandering Albatross), the initials have an asterisk (*).

The comments following each species are those of the authors and not the committee. For some species additional reports received by the secretary, but not yet circulated through the committee, or reports not submitted to the committee are mentioned in these comments. These reports are noted simply as items of interest and do not in any way reflect the feelings of the committee.

ACCEPTED RECORDS

YELLOW-BILLED LOON (*Gavia adamsii*). One (53-1976) 25 Jan 1976 through at least 13 Mar 1976, Berkeley Marina, Alameda Co. (JM, GMcC, DR, BS); photo on file (Figure 1).

This individual reappeared on 17 Jul and was last seen on 2 Aug 1976. This species is of annual occurrence along the central coast of California in winter. A review of all records from California through Aug 1974 is in print (Remsen and Binford, West. Birds 6:7-20, 1975).

WANDERING ALBATROSS (*Diomedea exulans*). One adult female (144-1977) 11-12 Jul 1967, Sea Ranch, Sonoma Co. (RP*); photo on file.

This is the only record for California and the North Pacific (Paxton, Auk 85:502-504, 1968).

Figure 1. Yellow-billed Loon (*Gavia adamsii*) (53-1976), 6 Mar 1976, Berkeley, Alameda Co., California.

Photo by Bruce Sorrie

SHORT-TAILED ALBATROSS (*Diomedea albatrus*). One subadult (100-1978) 20 Apr 1978, about 50 mile WNW of Monterey Bay, Santa Cruz Co. (RCH, LAB) (Helm, West. Birds, in press); photo on file.

The committee is reviewing an Aug 1977 observation made off the southern California coast. The last sighting in California was in 1946 (Traylor, Condor 52:90, 1950).

SHORT-TAILED SHEARWATER (*Puffinus tenuirostris*). Three (55-1976) 17 Jan 1976, Monterey Bay, Monterey Co. (GMcC, JM). Three to six (56-1976) 15 Feb 1976, Monterey Bay, Monterey Co. (GMcC, DR). Five (48-1974) 2 Feb 1974, Monterey Bay, Monterey Co. (VR).

Recent intensified work off the coast of central California indicates that this species is of regular occurrence in midwinter (Baltz and Morejohn, Auk 94:526-543, 1977). It is no longer on the review list.

STREAKED SHEARWATER (*Calonectris leucomelas*). One (93-1977) 9 Oct 1977, Monterey Bay, Monterey Co. (DR, JM, AS, SFB, KB, DP); photo on file. One specimen (90-1978) 3 Oct 1975, Monterey Bay, Monterey Co. (LCB*).

For discussions of these records see Roberson, Morlan and Small, Am. Birds 31:1097-1098, 1977, and Morejohn, Auk 95:420, 1978, respectively. These two records are the first for California and North America.

WILSON'S STORM-PETREL (*Oceanites oceanicus*). One (47-1976) 11 Oct 1976, Monterey Bay, Monterey Co. (RS).

What was probably this same bird was reported on Monterey Bay on 9 and 17 Oct (Am. Birds 31:217, 1977). This species is now found annually among "rafting" Ashy and Black storm-petrels congregating on Monterey Bay each fall. Individuals have been found as early as 18 Aug and as late as 1 Nov, with most in early Oct.

MASKED (BLUE-FACED) BOOBY (*Sula dactylatra*). One adult (1-1977) 10 Jan 1977, SW of San Clemente Island, San Diego Co. (DL, WBT).

This is the first record for California. The sighting was made during a regularly scheduled standard transect under a United States Department of Interior, Bureau of Land Management contract. For more information see Lewis and Tyler, West. Birds 9:175-176, 1978.

RED-FOOTED BOOBY (*Sula sula*). One adult female (60-1976) 26 Aug 1975, SE Farallon Island, San Francisco Co. (HH, TJL). One adult (61-1976) 12 Oct 1975, SE Farallon Island, San Francisco Co. (JW).

These records represent the first and second for California (Huber, West. Birds, in press).

MAGNIFICENT FRIGATEBIRD (*Fregata magnificens*). One adult male (28-1974) 10 Aug 1973, mouth of Santa Clara River, Ventura Co. (HK). Two immatures (28-1974) 20 Aug 1973, Red Hill, Salton Sea, Imperial Co. (HK).

The year 1973 was relatively good for frigatebirds in California with 11 sightings reported from along the coast north to Bodega Bay between 7 Jul and 14 Sep and 7 together at the north end of the Salton Sea on 25 Aug. This species is regular in California (McCaskie, Calif. Birds 1:117-142, 1970) and is no longer on the review list.

WHITE IBIS (*Eudocimus albus*). One adult (45-1976) 10-24 Jul 1976, mouth of Whitewater River, Salton Sea, Riverside Co. (DR,RS).

What was probably this same individual was reported at the south end of the Salton Sea on 5 Aug.

BEWICK'S SWAN (*Cygnus bewickii*). One adult (3-1975) 13-24 Jan 1975, Hog Lake, Tehema Co. (VR, RS).

Three immatures apparently accompanying this bird were either Bewick's Swans or Bewick's Swan × Whistling Swan hybrids. The American Ornithologists' Union (Check-list of North American birds, 1957) treats the Whistling Swan (*Cygnus columbianus*) as a distinct species from the Bewick's Swan, making no revisions in either the

32nd Supplement (Auk 90:411-419,1973) or the 33rd Supplement (Auk 93:875-879, 1976). However, the two forms are treated as one species, the Tundra Swan (*Cygnus columbianus*), in two recent major publications (Palmer, Handbook of North American birds, Vol. 2, part 1, 1976 and Cramp, The birds of the western Palearctic, Vol. 1, 1977). This represents the first record of this swan in California.

BRANT (*Branta bernicla hrota*). One (3-1974) 27 Nov 1973-8 Jan 1974, Malibu Lagoon, Los Angeles Co. (JD). One (4-1976) 13 Dec 1975-10 Jan 1976, San Diego Bay, San Diego Co. (VR).

One or two "white-bellied" Brant are found along the coast of California every year. They normally associate with the numerous "Black Brant" (*B.b. nigricans*). Reports of this distinct form are no longer being reviewed by the committee. The American Ornithologists' Union (Auk 93:875-879, 1976) now considers all forms of the Brant as one species, *Branta bernicla*.

BLACK-BELLIED WHISTLING-DUCK (*Dendrocygna autumnalis*). Three (43-1974) 15 Oct - 4 Nov 1973, Wister Unit, Imperial Wildlife Area, Imperial Co. (JD, VR); photo on file (Figure 2).

This straggler from Mexico has been reported from the vicinity of the Salton Sea on three previous occasions (1912, 1951, 1972).

GARGANEY (*Anas querquedula*). One male (27-1976) 19 Mar 1975, Long Beach, Los Angeles Co. (GMcC).

This is the first accepted record for California although this same individual or a different male appeared at the same location 15 Mar 1972 and 4 Apr 1974.

TUFTED DUCK (*Aythya fuligula*). One (25-1974) adult male 31 Dec 1973-2 Feb 1974, Lake Sherwood, Ventura Co. (probably same individual here every winter Jan

Figure 2. Black-bellied Whistling-Ducks (*Dendrocygna autumnalis*) (43-1974), 3 Nov 1973, Imperial Wildlife Area, Imperial Co., California.

Photo by John Luther

1973 through Jan 1977) (RS). One (46-1976) 7 Nov-12 Dec 1976, Lake Merritt, Alameda Co. (RS); photo on file. One adult male (126-1976) 31 Oct 1976-28 Mar 1977, Lake Merritt, Alameda Co. (RS). One (25-1976) adult male 30 Oct 1974-12 Jan 1975, Lake Sherwood, Ventura Co. (GMcC).

This straggler from northeast Asia is now being found in California every winter, with at least 10 individuals so far reported.

KING EIDER (*Somateria spectabilis*). One immature male (2-1974) 22 Nov 1973-28 Jan 1974, Malibu, Los Angeles Co. (JD, VR); photo on file. One immature male (24-1974) 24 Nov 1973-27 Apr 1974, Monterey Harbor, Monterey Co. (JD, VR); photo on file.

This is a very rare and sporadic wanderer from the north, apparently moving south from Alaska with migrant scoters. In addition to the above two records, two birds were found dead or dying at Bolinas Lagoon during the fall of 1973 (28 Oct and 3 Nov—Point Reyes Bird Observatory). The bird at Malibu establishes the southernmost record for the Pacific coast.

MISSISSIPPI KITE (*Ictinia mississippiensis*). One immature (7-1976) 6 Sep 1975, Cape Mendicino, Humboldt Co. (BC, LMcC). One adult (64-1976), 25-26 May 1976, Furnace Creek, Death Valley, Inyo Co. (DR, VR); photo on file. One adult (63-1976) 13 Sept 1976, Pt. Diablo, Marin Co. (WMP).

There are now nine records of this species in California, seven in spring (21 May-18 Jun) and two in fall. Five of the spring records are from Furnace Creek Ranch, one from near Goleta, Santa Barbara Co. (18 Jun 1933) and one from Santa Barbara (3 Jun 1970).

BROAD-WINGED HAWK (*Buteo platypterus*). One immature (5-1974) 24 Sep 1973, Pt. Loma, San Diego Co. (JD).

This species, first found in California in 1966, is now found annually in small numbers as a fall migrant with at least one or two wintering and an occasional bird found in spring. It is no longer being reviewed by the committee.

ZONE-TAILED HAWK (*Buteo albonotatus*). One immature (4-1974) 19-20 Sep 1973, Pt. Loma, San Diego Co. (JD). One adult (66-1976) 13-20 Sep 1974, Pt. Loma, San Diego Co. (TW, JBu). One immature (21-1976), 18-19 Sep 1975, Tijuana River Valley, San Diego Co. (GMcC). One immature (68-1976) 18 Oct 1975, northwestern Orange Co. (SR). One subadult (67-1976) 22 May 1976, Fort Piute, San Bernardino Co. (SFB).

One or two of these birds have been reported annually in southern California since 1972, most in the fall.

AMERICAN OYSTERCATCHER (*Haematopus palliatus*). One adult (9-1976) 6 Sep 1975 and 18 Apr 1976, Anacapa Island, Ventura Co. (GMcC).

An American Oystercatcher, initially reported on Anacapa Island on 24 May 1964 (Audubon Field Notes 18:486, 1964), has apparently been present there continuously, being seen on virtually the same rock year after year by most field ornithologists visiting the island. It was still present as of 20 May 1979.

PIPING PLOVER (*Charadrius melodus*). One (84-1974) 16 Dec 1973 - Mar 1974 (and two previous winters), Goleta, Santa Barbara Co. (JA); photo on file. One (44-1974) 18 Nov 1973-16 Apr 1974, Malibu Lagoon, Los Angeles Co. (JD, VR); photo on file (Figure 3).

These are the only two individuals to have been found in California.

DOTTEREL (*Eudromias morinellus*). One (82-1974) 12-20 Sep 1974, SE Farallon Island, San Francisco Co. (PH, DW, HH). Photo on file and in print (Henderson, West. Birds 10:92-94, 1979).

This is the first of this species to be found in California and only the second in North America outside Alaska, one having been collected in coastal Washington on 3 Sep 1934 (D.E. Brown, Condor 37:82, 1935).

UPLAND SANDPIPER (*Bartramia longicauda*). One (33-1976) 15 May 1976, Furnace Creek, Death Valley, Inyo Co. (RS, JSL).

This is the seventh of this species to be reported in California. It is significant that the four spring records all fall within the 13-23 May period.

SHARP-TAILED SANDPIPER (*Calidris acuminata*). One immature (78-1974) 29 Sep 1974, Pt. Reyes, Marin Co. (JM). One immature (74-1976) 11 Oct 1976, near Visalia, Tulare Co. (BB, JL); photo on file.

This species is now being found almost annually along the coast of California in fall, with small numbers occurring in some years (e.g. 1969) and dates of occurrences ranging from Sep into Dec. The one near Visalia is only the second inland record reported to this committee.

WHITE-RUMPED SANDPIPER (*Calidris fuscicollis*). One (70-1976) 16 Jun 1976, Salton Sea National Wildlife Refuge, Imperial Co. (LB, PL, JD, RW); photo on file.

One collected at the north end of the Salton Sea on 7 Jun 1969 (Audubon Field Notes 23:625, 1969) is the only previous record of this species in California.

CURLEW SANDPIPER (*Calidris ferruginea*). One (57-1974) 27-28 Apr 1974, Salton City, Imperial Co. (GMcC). One (73-1974) 7-14 Sep 1974, Bolinas Lagoon, Marin Co. (LS, GP); photo on file.

These are the third and fourth Curlew Sandpipers to be found in California, the previous two being for the fall period. (7 Sep 1966 and 16-17 Sep 1972).

SEMIPALMATED SANDPIPER (*Calidris pusilla*). One (56-1974) 11-12 May 1974, SE corner of Salton Sea, Imperial Co. (RS, BB, GMcC). One (80-1974) 21 Aug 1974, Limantour Estero, Marin Co. (GP, LS); photo on file. One (77B-1976) 12 May 1975, SE corner of Salton Sea, Imperial Co. (JM). One (45-1975) 2-4 Aug

Figure 3. Piping Plover (*Charadrius melodus*) (44-1974), 22 Nov 1973, Malibu Lagoon, Los Angeles Co., California.

Photo by Van Remsen

1975, Pescadero Marsh, San Mateo Co. (SFB , DR); photo on file. One (77A-1976) 16 May 1976, SE corner of Salton Sea, Imperial Co. (RS). One (76-1976) 6 Jun 1976, Salton Sea National Wildlife Refuge, Imperial Co. (VR). One (79 -1976) 16-17 Jun 1976, Abbott's Lagoon, Marin Co. (LS, GP).

This species is now being recorded annually in California with most records from the Salton Sea in May and from along the coast in Aug. The one at Abbott's Lagoon on 17 Jun is the latest to be recorded in spring.

BUFF-BREASTED SANDPIPER (*Tryngites subruficollis*). One (80-1976) 30 Aug 1975, Santa Catalina Island, Los Angeles Co. (LJ). Two (44-1976) 27 Aug-6 Sep 1976, mouth of Salinas River, Monterey Co. (RS, RB, DR); photo on file.

The previous records are all from along the coast in Sep.

BAR-TAILED GODWIT (*Limosa lapponica*). One (32-1976) 11 Feb-2 Mar 1976, Culver City, Los Angeles Co. (RM, BB).

The only two previous records submitted to and accepted by this committee are from Humboldt Bay (17 Jul-3 Sep 1974) and Bolinas Lagoon, Marin Co. (26 Oct-30 Nov 1973).

RUFF (*Philomachus pugnax*). One (20-1975) 19-20 Sep 1974, Doran Beach State Park, Sonoma Co. (JW); photo on file. One (24-1976) 6-15 Jan 1975, Playa del Rey, Los Angeles Co. (GMcC). One (28-1975) 23-29 Mar 1975, Los Banos, Merced Co. (JPM). One (17-1976) 4-10 Oct 1975, Tijuana River Valley, San Diego Co. (GMcC). One (50-1976) 28 Oct 1976-19 Mar 1977, Pacific Grove, Monterey Co. (RS); photo on file (Figure 4).

This species is now of annual occurrence in California, appearing most frequently in fall with some overwintering.

Figure 4. Ruff (*Philomachus pugnax*) (50-1976), 28 Oct 1976, Pacific Grove, Monterey Co., California.

Photo by Ron Branson

LESSER BLACK-BACKED GULL (*Larus fuscus*). One adult (64-1978) 14 Jan 1978, Monterey, Monterey Co. (LCB, RB, BP, JP); photo on file.

This is the first record of this species for California and the Pacific Coast. For complete details see Binford, West. Birds 9:141-150, 1978.

BLACK-HEADED GULL (*Larus ridibundus*). One adult (31-1976) 5-8 Apr 1976, Tomales Bay, Marin Co. (BS, JW, DR).

This is the third documented record for California, one having been in Richmond, Alameda Co. on 23-24 Jan 1954 and another on Humboldt Bay, Humboldt Co. 16-23 Jul 1972.

LITTLE GULL (*Larus minutus*). One immature (2-1975) 19 Jan-1 Mar 1975, Zmudowski State Beach, Monterey Co. (RB, VR, RS); photo on file.

This is the fourth Little Gull to be found in California, two of the previous three being around the Salton Sea (16-21 Nov 1968 and 3 Dec 1972) and the third at Redondo Beach, Los Angeles Co. (22-25 Dec 1969). This is the first immature to be recorded.

THICK-BILLED MURRE (*Uria lomvia*). Two (32-1974) 14 Sep-10 Nov 1973, Monterey Bay, Monterey Co. (RB, VR); photo on file. Two (75-1974) 11 Aug 1974, Monterey Bay, Monterey Co. (SFB).

One or two Thick-billed Murres have been reported around Monterey Bay almost annually since the discovery of the first one there on 27 Aug 1964 (Yadon, Calif. Birds 1:107-110, 1970).

HORNED PUFFIN (*Fratercula corniculata*). One (7-1975) 26 Sep-23 Oct 1974, SE Farallon Island, San Francisco Co. (RS).

This species may not be as rare on the open ocean off California as previously thought, especially in the light of the large numbers encountered in 1975. It is no longer on the review list.

BLACK-BILLED CUCKOO (*Coccyzus erythropthalmus*). One immature (41-1976) 8 Sep 1976, Carmel River mouth, Monterey Co. (MN).

One on Point Reyes, Marin Co., on 22 Sep 1965 (Condor 69:318, 1967) is the only other acceptable record for California.

GROOVE-BILLED ANI (*Crotophaga sulcirostris*). One (35-1976) 4-16 Nov 1976, near Lakeview, Riverside Co. (BP, AA, RC); photo on file.

This is the first Groove-billed Ani to be recorded in California.

SNOWY OWL (*Nyctea scandiaca*). One (6-1974) 28 Dec 1973, near Eureka, Humboldt Co. (JD). Five (7-1974) 28 Dec 1973, Lake Earl, Del Norte Co. (JD). One (8-1974) 29 Dec 1973, Pt. St. George, Del Norte Co. (JD). One (51-1974) 6-7 Jan 1974, Pt. Reyes National Seashore, Marin Co. (VR); photo on file. One (53-1974) 30 Jan-9 Feb 1974, Bodega Bay, Sonoma Co. (VR). One (52-1974) 9-18 Feb 1974, Alameda, Alameda Co. (VR); photo on file.

What may well have been the largest influx of Snowy Owls in historical times into California took place during the winter of 1973-74, with more than 40 individuals reported from various points along the coast south to Monterey County (Am. Birds 28:685, 1974).

BLUE-THROATED HUMMINGBIRD (*Lampornis clemenciae*). One female (20-1978) 27 Dec 1977-27 May 1978, Three Rivers, Tulare Co. (GSc, FB, JM, VR, HS); photo on file (Figure 5).

This is the first record of this species in California. It apparently bred successfully, perhaps hybridizing with an Anna's Hummingbird (details to be published elsewhere). It apparently re-nested, but was not successful.

VIOLET-CROWNED HUMMINGBIRD (*Amazilia verticalis*). One (36-1976) 6 Jul to late Dec 1976, near Santa Paula, Ventura Co. (JJ, FZ, HC, DR, RS); photo on file.

This is the first Violet-crowned Hummingbird to be recorded in California. For details see Johnson and Ziegler, West. Birds 9:91-92, 1978.

BROAD-BILLED HUMMINGBIRD (*Cynanthus latirostris*). One (40-1976) 21 Jan-18 Feb, Glendale, Los Angeles Co. (JB); photo on file.

There are at least five previous records of this southern hummingbird for California. (McCaskie, Calif. Birds 1:111-112, 1970).

THICK-BILLED KINGBIRD (*Tyrannus crassirostris*). One immature (83-1974) 27 Oct-19 Dec 1974, San Francisco, San Francisco Co. (LCB, SFB); photo on file.

There are four previous records for California, all from the area around San Diego, on dates ranging from 18 Oct to 27 Dec.

SULPHUR-BELLIED FLYCATCHER (*Myiodynastes luteiventris*). One (69-1974) 22 Sep-5 Oct 1974, Point Mugu State Park, Ventura Co. (HB).

This is the first Sulphur-bellied Flycatcher to be recorded in California.

GREAT CRESTED FLYCATCHER (*Myiarchus crinitus*). One (19-1976) 19 Sep 1975, Pt. Loma, San Diego Co. (GMcC). One (43-1976) 3 Oct 1976, Bolinas, Marin Co. (SFB).

There are now at least 12 reports of this eastern flycatcher in California, all during the fall period, on dates from 17 Sep to 20 Oct.

OLIVACEOUS FLYCATCHER (*Myiarchus tuberculifer*). One (10-1976) 29 Nov 1975-4 Jan 1976, Furnace Creek, Death Valley, Inyo Co. (BY, GMcC, MA, JH, RH, TH, RL, RS); photo on file. One (8-1976) 7 Dec 1975-11 Apr 1976, Carmel River mouth, Monterey Co. (GZ, RB, GMcC, VR); photo on file.

This species is an accidental late fall and winter visitant to California. Apart from these two records, there are two specimen records for California: one from Furnace Creek Ranch, Inyo Co., 23 Nov 1968 (Suffel, Calif. Birds 1:79-80, 1970) and one near Walter's Camp on the Colorado River, Riverside Co., 14 Nov 1977 (present since 9 Nov).

Figure 5. Blue-throated Hummingbird (*Lampornis clemenciae*)(20-1978), Jan 1978, Three Rivers, Tulare Co., California.

Photo by Frank Baldridge

EASTERN PHOEBE (*Sayornis phoebe*). One (34-1974) 21 May 1973, Furnace Creek, Death Valley, Inyo Co. (HK). One (84-1976) 14 Dec 1975-7 Feb 1976, near Bodega, Sonoma Co. (JM). One (83-1976) 9 Jan-3 Mar 1976, Santee Lakes Park, San Diego Co. (GMcC). One (85-1976) 24 Jan-22 Feb 1976, Paicines, San Benito Co. (JM, AG, WG).

This species is a rare but regular late fall and winter visitant to California (mid Oct to early Apr). All but one of the above records match this pattern, the exception being the late May record at Furnace Creek Ranch. This record establishes the first documented record of this species for California during the spring period. This species is no longer being reviewed.

LEAST FLYCATCHER (*Empidonax minimus*). One (18-1976) 28-29 Sep 1975, Tijuana River Valley, San Diego Co. (GMcC). One (16-1976) 1 Oct 1975, Tijuana River Valley, San Diego Co. (GMcC). One (15-1976) 15-19 Oct 1975, Tijuana River Valley, San Diego Co. (GMcC). One (88-1976) 28 May 1976, Oasis, Mono Co. (JM).

Recent field work by observers familiar with the characteristics of the genus *Empidonax* has shown that this species is a rare but perhaps regular late spring and fall vagrant to California. Most reports have come since 1974, reflecting when some observers first felt competent to identify this species in the field.

COUES' FLYCATCHER (*Contopus pertinax*). One (46-1974) 19 Jan-25 Mar 1974, Presidio Park, San Diego Co. (JD, RS). One (91-1976) 15 Nov-31 Dec 1974, near Pacific Palisades, Los Angeles Co. (KG, LJ). One (5-1976) 6 Dec 1975-18 Feb 1976, New Brighton State Beach, Santa Cruz Co. (VR, BY, CY); photo on file. One (90-1976) 3 Jan-10 Mar 1976, Oceanside, San Diego Co. (GMcC).

This species is a casual fall and winter visitant to California. There are now 14 reports for California, all but two being from southern California. Dates of occurrence range from 29 Sep to 10 Apr. It is significant that except for two collected in fall, all individuals remained into the winter season.

EASTERN WOOD PEWEE (*Contopus virens*). One (27-1975) 18-19 Oct 1974, Big Sycamore Canyon, Ventura Co. (JD).

This calling bird established the first record for California.

BLUE JAY (*Cyanocitta cristata*). One (55-1974) 24 Oct 1973, Panamint City, Inyo Co. (SD'V); photo on file.

There are now eight reports for California with only two records for southern California, the above record and one at Igos in the San Bernardino Mountains from 20 Oct 1963 - 20 Apr 1964 (McCaskie, Calif. Birds 1:81-83, 1970).

GRAY CATBIRD (*Dumetella carolinensis*). One (45-1974) 28 Dec 1973 - 20 Feb 1974, Pebble Beach, Monterey Co. (RB, JD, VR, RS); photo on file. One (61-1974) 1 Jun 1974, Deep Springs, Inyo Co. (VR). One (21-1975) 19-20 Sep 1974, Bodega Bay, Sonoma Co. (JW). One (23-1976) 30 May - 1 Jun 1975, Oasis, Mono Co. (GMcC, TH). One (94-1976) 27-28 Oct 1975, Santa Barbara, Santa Barbara Co. (JGM). One (96-1976) 24-25 Sep 1976, Pt. Loma, San Diego Co. (KVV, GMcC). One (95-1976), 17-18 Oct 1976, Pt. Loma, San Diego Co. (RS, GMcC, DR).

This species is a casual spring and fall vagrant to California. Of the nine spring reports, all but one are for the eastern portion of the state from the Oasis/Deep Springs area south to Ft. Piute in San Bernardino Co. The Pebble Beach bird listed above establishes the first winter record for California.

CURVE-BILLED THRASHER (*Toxostoma curvirostre*). One (67-1974) 14 Apr 1974, Brock Ranch, Imperial Co. (BB). Two (97-1976) 25 Jan (one bird), 31 Jan (two birds)-13 Apr (at least one still present) 1976, Finney Lake, Imperial Co. (GMcC).

This species is primarily a casual fall and winter visitant to southeastern California. A report for late Jul at Brock Ranch and the above Apr record differ from the primary pattern. There are now about 14 reports for California.

RUFOUS-BACKED ROBIN (*Turdus rufopalliatus*). One (50-1974) 17 Dec 1973 - 6 Apr 1974, Imperial Dam, Imperial Co. (KK, JA, JD, CL, SL, SEL, RS).

This west Mexican species now occurs somewhat regularly as a late fall and winter visitant to southeastern Arizona north to the Phoenix area. The above record, the first for California, closely matches the pattern established in Arizona. There is a report of this species at Saratoga Springs, San Bernardino Co., 19 Nov 1974 (Am. Birds 29:123, 1975) which has not yet been circulated through this committee.

VEERY (*Catharus fuscescens*). One (95-1973) 20 Oct 1973, SE Farallon Island, San Francisco Co. (RS). One (81-1974) 12-16 Oct 1974, Big Sycamore Canyon, Ventura Co. (HB, BB); photo on file.

The Farallon Island bird cited above is the first recorded in California. At present these are the only accepted records for California. Other records are still to be reviewed by the committee.

SPRAGUE'S PIPIT (*Anthus spragueii*). One (12-1976) 22 Nov 1975, Tijuana River Valley, San Diego Co. (GMcC). One (98-1976) 21-24 Oct 1976, Carson, Los Angeles Co. (GSS, GMcC).

This species is proving to be a somewhat regular late fall visitant to the coast of southern California. Since 1974, when this species was first recorded in California (McCaskie, West. Birds 6:29-30, 1975), it has turned up every fall. This species regularly winters in southeastern Arizona north to Phoenix, and recent field work along the Colorado River has revealed its presence there, though to date all of the records have been from the Arizona side of the river.

YELLOW-THROATED VIREO (*Vireo flavifrons*). One (34-1976) 5-9 May 1976, Morongo Valley, Riverside Co. (RS). One (99-1976) 23-26 May 1976, Deep Springs, Inyo Co. (HK, GMcC, DR).

This species is a casual spring and fall vagrant with one winter occurrence in Riverside (5 Dec 1969 - 19 Mar 1970).

YELLOW-GREEN VIREO (*Vireo flavoviridis*). One immature (100-1976) 25 Oct 1976, Tijuana River Valley, San Diego Co. (GMcC).

This species appears to be a casual fall vagrant from the south. There are now about nine reports for California, all but one being for southern California. A bird collected near Riverside on 1 Oct 1887 (Price, Auk 5:146, 1904) is the only one found away from the immediate coast.

RED-EYED VIREO (*Vireo olivaceus*). One immature (11-1974) 1 Sep 1973, Deep Springs, Inyo Co. (JD). One immature (22-1974) 2 Sep 1973, Furnace Creek, Death Valley, Inyo Co. (JD).

This species is a rare but regular spring and fall vagrant to California, although individuals seen in early Sep in the eastern part of California may be on the fringe of the normal migratory route from their breeding grounds in the Pacific Northwest. This species is no longer being reviewed by the committee.

PHILADELPHIA VIREO (*Vireo philadelphicus*). One (44-1975) 14 Sep 1975, E. Anacapa Island, Ventura Co. (SFB). One (20-1976) 19-23 Sep 1975, Pt. Loma, San Diego Co. (GMcC). One (14-1976) 18-19 Oct 1975, Tijuana River Valley, San Diego Co. (GMcC); photo on file. One (105-1976) 24-25 May 1976, Oasis, Mono Co. (VR, DR). One (104-1976) 26-27 May 1976, Scotty's Castle, Death Valley, Inyo Co. (DR). One (102-1976) 19 Sep 1976, Tijuana River Valley, San Diego Co. (GMcC). One (106-1976) 22-23 Sep 1976, Pt. Reyes, Marin Co. (RE, JM). One (103-1976) 17 Oct 1976, Santa Barbara Island, Santa Barbara Co. (GSS). One (101-1976) 15-17 Oct 1976, Pt. Loma, San Diego Co. (GMcC, DR).

This species is a rare but somewhat regular vagrant to California, with most records being in fall (mid Sep to mid Nov).

PROTHONOTARY WARBLER (*Protonotaria citrea*). One male (62-1974) 25-26 May 1974, Furnace Creek, Death Valley, Inyo Co. (VR, RS, MW); photo on file. One

male (38-1975) 28 Sep 1974, Neary's Lagoon, Santa Cruz Co. (RAM). One male (39-1975) 3 Oct 1975, Pt. Reyes, Marin Co. (JM).

This species is a casual late spring and fall vagrant to California.

WORM-EATING WARBLER (*Helmitheros vermivorus*). One (26-1974) 16-21 Aug 1973, Santee, San Diego Co. (DBR). One (21-1974) 1 Oct 1973, Pt. Loma, San Diego Co. (JD). One (108-1976) 5 Oct 1975, Pt. Loma, San Diego Co. (LSa). One (41-1975) 11-13 Oct 1975, Saline Valley, Inyo Co. (CI). One (107-1976) 27 Nov 1975, Tapia Park, Los Angeles Co. (BB).

This species is a casual vagrant to California, occurring mostly in the fall.

GOLDEN-WINGED WARBLER (*Vermivora chrysoptera*). One male (49-1974) 20-21 May 1973, Deep Springs, Inyo Co. (JSL, SAL, JD). One female (63-1974) 26-27 May 1974, Oasis, Mono Co. (RS, VR). One male (19-1975) 29 Sep 1974, Deep Springs, Inyo Co. (TH). One male (112-1976) 30 Nov 1974, San Gabriel Mountains, Los Angeles Co. (CV). One male and one female (32-1975) 19-21 Sep 1975, Fairhaven, Humboldt Co. (DRu, TS); photo on file. One male (111-1976) 15-17 Oct 1976, Scotty's Castle, Death Valley, Inyo Co. (GMcC, DR, TH).

This species is a casual late spring and fall vagrant to California.

NORTHERN PARULA (*Parula americana*). One female (36-1974) 27 May 1973, Oasis, Mono Co. (JSL). One female (20-1974) 3-7 Oct 1973, Otay Mesa, San Diego Co. (JD).

This species is a rare but regular spring and fall vagrant to California, being casual during the winter season. It has twice nested in the state. It is no longer being reviewed by the committee.

CAPE MAY WARBLER (*Dendroica tigrina*). One male (19-1974) 29 Sep 1973, San Nicolas Island, Ventura Co. (JD). One male (18-1974) 27 Oct - 3 Nov 1973, Desert Center, San Bernardino Co. (JD). One female (17-1974) 3 Nov 1973, Desert Center, San Bernardino Co. (JD). One male (9- 1975) 1-3 Jun 1974, SE Farallon Island, San Francisco Co. (RS); photo on file. One male (9-1975) 1-5 Jun 1974, SE Farallon Island, San Francisco Co. (RS); photo on file. One female (29-1975) 28-30 Oct 1974, Furnace Creek, Inyo Co. (SS). One male (30-1975) 30 Oct 1974, Shoshone, Inyo Co. (GSS).

This species is proving now to be a rare but regular late spring and especially fall vagrant to California. It appears to have increased its tendency to wander to California, as prior to 1968 only three were reported in the state. It is no longer on the review list.

BLACK-THROATED GREEN WARBLER (*Dendroica virens*). One (12-1974) 3 Nov 1973, Kelso, San Bernardino Co. (JD). One (13-1974) 3 Nov 1973, Twentynine Palms, San Bernardino Co. (JD). One (14-1974) 21 Oct 1973, San Nicolas Island, Ventura Co. (JD). One male (15-1974) 20 Sep 1973, Otay Mesa, San Diego Co. (JD). One (13-1975) 26-27 Oct 1974, Palos Verdes Peninsula, Los Angeles Co. (SW).

This species is a rare but regular fall vagrant to southern California, but only a casual straggler in the northern part of the state. It is no longer on the review list.

CERULEAN WARBLER (*Dendroica cerulea*). One female (59-1974) 27 May 1974, Oasis, Mono Co. (RS, VR).

This is the third report of this vagrant in California and the first during spring. The other two records are of one collected at the south end of the Salton Sea, Imperial Co., on 1 Oct 1947 (Hanna and Cardiff, Condor, 49:245, 194) and one seen on Pt. Loma, San Diego Co., on 26 Oct 1967.

YELLOW-THROATED WARBLER (*Dendroica dominica*). One male (58-1974) 23 Apr 1974, San Diego, San Diego Co. (GMcC). One (24-1975) 24 May 1975, Antelope Springs, Inyo Co. (RD). One (30-1975) 26 May 1975, Deep Springs, Inyo Co. (GMcC). One (114-1976) 31 May 1975, Oasis, Mono Co. (TH). One (113-1976) 2-7 Sep 1976, Pt. Reyes, Marin Co. (AG, JM, RS); photo on file (Figure 6).

This species is a casual spring and fall vagrant to California. The San Diego bird was exceptionally early for a traditional eastern vagrant and suggests that this individual may have wintered somewhere on the west coast of Mexico. All of the above individuals were believed to be of the "white-lored" subspecies *D.d. albilora*. The only record of the "yellow-lored" type, *D.d. dominica* or *D.d. stoddardi*, is of one banded on Pt. Loma, San Diego Co., 15 Oct 1969 and present to 5 Nov 1969 (Craig, Calif. Birds 3:17-18, 1972).

GRACE'S WARBLER (*Dendroica graciae*). One (23-1975) 15 Jun - 3 Jul 1975, Arrastre Creek near Onyx Summit, San Bernardino Co. (KG).

This is only the fourth reported in California and the second of a bird during summer in suitable nesting habitat. Two were on the coast of San Diego Co. on 29 Oct 1966 and 8 Sep 1968 (Craig, Calif. Birds 1:77-78, 1970) and one was on Clark Mountain, San Bernardino Co., on 30 May 1974 (Johnson and Garrett, West. Birds 5:45-56, 1974).

CHESTNUT-SIDED WARBLER (*Dendroica pensylvanica*). One male (66-1974) 26 May 1974, Furnace Creek, Inyo Co. (BB). One (17-1975) 21-22 Sep 1974, Oasis, Mono Co. (JH, TH). One (22-1975) 26 May 1975 Wyman Canyon, Inyo Co. (RD).

This species is a rare but regular late spring and fall vagrant in California. It is no longer being reviewed by the committee.

BAY-BREASTED WARBLER (*Dendroica castanea*). One male and one female (10-1975) 1-3 Jun 1974, SE Farallon Island, San Francisco Co. (RS); photo on file. One male (60-1974) 3 Jun 1974, Deep Springs, Inyo Co. (VR). One (12-1975) 20-21 Sep 1974, Tijuana River Valley, San Diego Co. (PU). One (18-1975) 20 Oct 1974, Deep Springs, Inyo Co. (TH). One (6-1976) 2 Oct 1975, Pt. Reyes, Marin Co. (JM).

Figure 6. Yellow-throated Warbler (*Dendroica dominica*) (113-1976), 5 Sep 1976, Pt. Reyes, Marin Co., California.

Photo by Al Ghiorso

This species is now a rare but regular late spring and fall vagrant in California. Like the Cape May Warbler, it is now recorded with much greater frequency than formerly even though vagrant traps were being checked in the early and mid 1960s. This species is no longer being reviewed.

PINE WARBLER (*Dendroica pinus*). One (110-1976) 13-16 Oct 1976, Pt. Loma, San Diego Co. (GMcC, DR, BSc); photo on file.

This species has only been reported along the coast of California during the fall. It should be identified with extreme caution, as bright fall immature Blackpoll Warblers have often been erroneously identified as Pine Warblers.

KENTUCKY WARBLER (*Oporornis formosus*). One male (39-1974) 1 Jun 1973, Santa Barbara Island, Santa Barbara Co. (KG). One female (8-1975) 1-3 Jun 1974, SE Farallon Island, San Francisco Co. (RS); photo on file.

This species is a casual late spring vagrant to California with most records coming from SE Farallon Island. There is also one specimen supported record for late fall (21-23 Nov 1972) at Eureka, Humboldt Co. (Am. Birds 27:118, 1973).

CONNECTICUT WARBLER (*Oporornis agilis*). One (79-1974) 22 Sep 1974, Stovepipe Wells, Inyo Co. (DR, JM, SFB). One (37-1975) 26 Sep 1974, Pt. Reyes, Marin Co. (TS, RE). One (36-1975) 29 Sep 1974, Pt. Reyes, Marin Co. (PM).

This species is a casual late spring and fall vagrant to California. The record at Stovepipe Wells is the first for the interior of the state.

MOURNING WARBLER (*Oporornis philadelphia*). One male (37-1976) 29 May 1976, Furnace Creek, Inyo Co. (HB, JH, TH).

This species is a casual late spring and fall vagrant to California.

RED-FACED WARBLER (*Cardellina rubrifrons*). One (42-1974) 14 Jun 1973, San Gabriel Mountains, Los Angeles Co. (KG, JD). One (28-1976) 17 May 1975, Clark Mountain, San Bernardino Co. (GMcC).

The only previous record of this species was of one collected in the desert lowlands at Brock Ranch, Imperial Co., on 30 May 1970 (McCaskie, Calif. Birds 1:145-146, 1970). What may have been the same individual as # 28-1976 was reported on Clark Mountain on 22 Jun 1975 (Am. Birds 29:1036, 1975). The two records listed above are from plausible breeding localities.

HOODED WARBLER (*Wilsonia citrina*). One male (6-1975) 5-6 Oct 1974, near Santa Cruz, Santa Cruz Co. (RS). One male (4-1975) 30-31 Oct 1974, Furnace Creek, Inyo Co. (RS). One female (49-1976) 15 Sep 1976, Carmel River, Monterey Co. (RS).

This species is a rare but apparently regular spring and fall vagrant to California. It is no longer being reviewed.

CANADA WARBLER (*Wilsonia canadensis*). One (35-1974) 9-11 Sep 1973, Otay Mesa, San Diego Co. (JD). One (2-1976) 26 Sep 1974, Pt. Reyes, Marin Co. (RE, TS). One (1-1976) 27 Sep 1974, Ano Nuevo, San Mateo Co. (BY). One (74-1974) 6 Oct 1974, Montana de Oro State Park, San Luis Obispo Co. (JJ). One (16-1975) 20 Oct 1974, San Clemente Island, Los Angeles Co. (JLa). One (1-1975) 27 Oct 1974, Tijuana River Valley, San Diego Co. (JM). One (3-1976) 6 Sep 1975, Fairhaven, Humboldt Co. (SS). One (34-1975) 26 Oct 1975, Golden Gate National Recreation Area, Marin Co. (VR). One (117-1976) 7 Sep 1976, Oceanside, San Diego Co. (GMcC). One (119-1976) 25 Sep 1976, Big Morongo, San Bernardino Co. (DM). One (118-1976) 26 Sep 1976, Pt. Loma, San Diego Co. (GMcC). One (48-1976) 3-8 Oct 1976, Pacific Grove, Monterey Co. (BH, CJ, RS).

This species is a rare but regular fall vagrant, accidental in spring. The record listed above for Big Morongo is one of very few records away from the coast. This species is no longer being reviewed.

PAINTED REDSTART (*Myioborus pictus*). One (11-1975) 2 Sep 1974, Pt. Loma, San Diego Co. (PU).

There are now about 50 records of this species for California, all from the southern portion of the state north to Tulare Co. Along the coastal slope this species occurs

primarily as a rare or casual fall vagrant and winter visitant. For a complete discussion of its distribution in California see Unitt, West. Birds 5:94-96, 1974. The species is no longer being reviewed.

STREAK-BACKED (SCARLET-HEADED) ORIOLE (*Icterus pustulatus*). One immature male (147-1977) 6 Nov - 11 Dec 1977, Furnace Creek, Inyo Co. (JD, GMcC, VR, DR).

This is the first report of this species at an inland locality in California. The previous five reports have come from coastal localities in San Diego (4) and Los Angeles (1) counties.

RUSTY BLACKBIRD (*Euphagus carolinus*). Two (68-1974) 5-12 Jan 1974, near Solvang, Santa Barbara Co. (JA).

This species occurs regularly as a scarce late fall transient through the northeastern portion of southern California (McCaskie, Calif. Birds 2:55-68, 1971). Along the coast and on the Channel Islands it is rare but regular as a fall transient and winter visitant. It is no longer being reviewed by the committee.

COMMON GRACKLE (*Quiscalus quiscula*). One (29-1976) 21-26 May 1975, Furnace Creek, Inyo Co. (GMcC, AM); photo on file. One (38-1976) 30 Apr 1976, Morongo Valley, San Bernardino Co. (RD).

A specimen from El Cajon, San Diego Co., 20 Nov 1969 was the first record for California. The Furnace Creek bird above establishes the second occurrence.

SCARLET TANAGER (*Piranga olivacea*). One male (43-1975) 5 Jun 1975, Morongo Valley, San Bernardino Co. (WT). One male (13-1976) 4-8 Nov 1975, Furnace Creek, Inyo Co. (GMcC). One male (120-1976) 27 Nov - 13 Dec 1976, San Luis Obispo, San Luis Obispo Co. (FT).

This species is a casual, bordering on very rare, late spring and late fall vagrant to California, the great majority occurring in southern California. The record for San Luis Obispo establishes the latest fall record for California.

PYRRHULOXIA (*Pyrrhuloxia sinuata*). One female (64-1974) 23 May 1974, Brock Experimental Ranch, Imperial Co. (RS). One male (72-1974) 14 Jul 1974, Palo Verde, Riverside Co. (GS). One male (70-1974) 18 Jul 1974, Westmorland, Imperial Co. (DR).

All records to date are for the southeastern portion of the state. There appears to be no clear seasonal pattern, although the first two records for California were clearly of wintering birds.

VARIED BUNTING (*Passerina versicolor*). A flock of 15 to 20 birds (145-1977) with one adult male and one female collected by Dr. J.A. Hornung, 8-9 Feb 1914, near Blythe, Riverside Co. (JD*). One male(130-1977) 18-21 Nov 1977, Mesquite Springs, Inyo Co. (DD, DR, JD, GMcC); photo on file.

These are the only accepted records for California.

PAINTED BUNTING (*Passerina ciris*). One (22-1976) 11 Sep 1975, Pt. Loma, San Diego Co. (GMcC). One immature male (122-1976) 27-28 Nov 1976, Scotty's Castle, Inyo Co. (BP, GMcC, DR); photo on file.

This species is a casual fall vagrant to southern California. Birds, particularly adult males, falling outside the known pattern of fall vagrancy are highly suspect as escapes.

BLACK ROSY FINCH (*Leucosticte atrata*). One (11-1976) 28 Nov 1975, Westgard Pass, Inyo Co. (GMcC).

This species is a rare straggler along the eastern fringe of the state, always occurring with flocks of Gray-crowned Rosy Finches. It may be more regular than the five reports indicate but it is still probably of irregular occurrence.

LE CONTE'S SPARROW (*Ammospiza leconteii*). One (15-1975) 16 Nov 1974, Richmond, Contra Costa Co. (EH).

This establishes the fourth occurrence of this species in California, the previous three also being during fall.

SHARP-TAILED SPARROW (*Ammospiza caudacuta*). One (26-1976) 26 Jan 1975, Newport Bay, Orange Co. (GMcC). Two (124-1976) 23 Oct 1975 - 5 Mar 1977, Newport Bay, Orange Co. (GMcC, DR); photo on file. One (125-1976) 25-26 May 1976, Oasis, Mono Co. (DR). One (123-1976) 27-29 May 1976, Furnace Creek, Inyo Co. (DR, GMcC).

This species has been found almost every winter in recent years at Newport Bay and in the San Francisco Bay area. The two records at inland localities are the first documented occurrences away from coastal marshes.

CASSIN'S SPARROW (*Aimophilia cassinii*). One (62-1976) 8-11 May 1976, El Cajon, San Diego Co. (GMcC, VR).

The bird cited above and one present at the same locality 15-30 May 1970 were singing and skylarking. These are the only California records away from SE Farallon Island prior to 1978.

SNOW BUNTING (*Plectrophenax nivalis*). One (35-1975) 16 Nov 1975, Bodega Bay, Sonoma Co. (RA, DWe).

This species is rare but somewhat regular along the coast south to Marin Co., with most reported from late fall to early winter.

UNACCEPTED RECORDS, Identification uncertain

YELLOW-BILLED LOON (*Gavia adamsii*). One (51-1976) 6 Sep 1976, Boca Reservoir, Nevada Co.

SCALED PETREL (*Pterodroma inexpecta*). One (14-1975) 1 Dec 1974, between Catalina Island and Palos Verdes Peninsula, Orange Co.

RED-BILLED TROPICBIRD (*Phaethon aethereus*). One (67-1973) 29 Jun 1973, Pescadero Marsh, San Mateo Co.

BROWN BOOBY (*Sula leucogaster*). One (59-1976) 20 Jul 1975, Scott's Creek Beach, Santa Cruz Co.

MASKED DUCK (*Oxyura dominica*). One (72-1977) 17 Jul 1977, Salton Sea, Imperial Co.

ZONE-TAILED HAWK (*Buteo albonotatus*). One (65-1976) 7 Nov 1975, San Pedro, Los Angeles Co.

SHARP-TAILED SANDPIPER (*Calidris acuminata*). One (72-1976) 19 Sep 1976, Malibu Lagoon, Los Angeles Co.

SEMIPALMATED SANDPIPER (*Calidris pusilla*). One (75-1976) 5 Aug 1976, Mono Lake, Mono Co.

BAR-TAILED GODWIT (*Limosa lapponica*). One (47-1975) 28 Sep 1975, Pt. Reyes, Marin Co. One (81-1976) 17 Apr 1976, Bodega Bay, Sonoma Co.

SNOWY OWL (*Nyctea scandiaca*). One (54-1974) 15 Jan 1974, Sunnyvale, Santa Clara Co.

RIVOLI'S HUMMINGBIRD (*Eugenes fulgens*). One (78-1977) 7 Sep 1977, near Auburn, Placer Co.

WHITE-EARED HUMMINGBIRD (*Hylocharis leucotis*). One (42-1976) 19-20 Mar 1976, Ojai, Ventura Co.

ALDER FLYCATCHER (*Empidonax alnorum*). One (118-1977) 21 Sep 1971, SE Farallon Island, San Francisco Co. Specimen identified as a Willow Flycatcher (*E. traillii*).

LEAST FLYCATCHER (*Empidonax minimus*). One (87-1976) 12 Oct 1975, Oasis, Mono Co. One (89-1976) 19 Sep 1976, Kelso, San Bernardino Co.

UNACCEPTED RECORDS, Identification uncertain (Cont.)

EASTERN WOOD PEWEE (*Contopus virens*). One (92-1976) 11 Oct 1975, Big Sycamore Canyon, Ventura Co.
VEERY (*Catharus fuscesens*). One (42-1975) 6 Oct 1975, Pt. Reyes, Marin Co.
WHEATEAR (*Oenanthe oenanthe*). One (71-1974) 2 Sep 1974, Pt. Reyes, Marin Co.
WHITE WAGTAIL (*Motacilla alba*). One (40-1975) 2 Mar 1975, Pajaro River, Watsonville, Santa Cruz Co.
RED-EYED VIREO (*Vireo olivaceus*). One (65-1974) 28 May 1974, Scotty's Castle, Inyo Co.
PHILADELPHIA VIREO (*Vireo philadelphicus*). One (77-1974) 24 Aug 1974, Tilden Regional Park, Contra Costa Co.
SWAINSON'S WARBLER (*Limnothlypis swainsonii*). One (109-1977) 31 Apr 1977, El Monte, Los Angeles Co.
PINE WARBLER (*Dendroica pinus*). One (76-1974) 6 Oct 1974, Pt. Reyes, Marin Co.
CONNECTICUT WARBLER (*Oporornis agilis*). One (39-1976) 15-16 Sep 1975, Big Sycamore Canyon, Ventura Co. One (115-1976) 18 Sep 1976, San Francisco, San Francisco Co.
MOURNING WARBLER (*Oporornis philadelphia*). One (25-1975) 24 May 1975, Deep Springs, Inyo Co.
RED-FACED WARBLER (*Cardellina rubrifrons*). Two (116-1976) 15 May 1975, Lake Fulmor, San Jacinto Mountains, Riverside Co.
COMMON GRACKLE (*Quiscalus quiscula*). One (26-1975) 1 Jun 1975, Pt. Reyes, Marin Co.
INDIGO BUNTING (*Passerina cyanea*). One (10-1973) 30 Sep 1972, Kelso, San Bernardino Co.
PAINTED BUNTING (*Passerina ciris*). One female (33-1975) 13 Mar 1975, Fremont, Alameda Co. Two males (31-1975) 28 Mar 1975, near Tulles Lake, Imperial Co.

UNACCEPTED RECORDS, Origin Uncertain (Identification accepted)

ANHINGA (*Anhinga anhinga*). One female (3-1977) 4 Feb 1977 to at least 17 Mar 1978, Sweetwater Reservoir, San Diego Co.
BLACK DUCK (*Anas rubripes*). One specimen (88-1978) 1 Feb 1911, Willows, Glenn Co.
SPECTACLED EIDER (*Lampronetta fischeri*). One adult male specimen (head only) (141-1977) Feb 1893, Bitterwater Lake, San Benito Co.
BLACK VULTURE (*Coragyps atratus*). One (12-1972) 13 Apr 1972, Chico, Butte Co. One (35-1978) 5 Sep 1977, near Parker Dam, San Bernardino Co. One member voted identification uncertain on the Parker Dam record, and one member voted origin uncertain.
HARRIS' HAWK (*Parabuteo unicinctus*). One (69-1976) 23-24 Aug 1976, Tijuana River Valley, San Diego Co.
BLACK-TAILED GULL (*Larus crassirostris*). One adult female specimen (143-1977) 28 Nov 1954, San Diego, San Diego Co.
For details see Monroe, Auk 72:208, 1955 and McCaskie et al., Calif. Birds 1:24-25, 1970.
KITTLITZ'S MURRELET (*Brachyramphus brevirostris*). One juvenile specimen (83-1978) 16 Aug 1969, La Jolla, San Diego Co.
For details see Devillers, Calif. Birds 3:33-38, 1972.

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Sketch by Donna Dittmann

HABITAT SPECIFIC BEHAVIOR OF THE PARAKEET AUKLET IN THE BARREN ISLANDS, ALASKA

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We are not aware of any published accounts of the behavior of the Parakeet Auklet (*Cyclorrhynchus psittacula*). Previous studies of this species have centered on its ecology in the Bering Sea (Bédard 1969a, 1969b, Sealy 1968, Sealy and Bédard 1973). Our intent is to discuss and relate the basic behavior patterns of this species to the reproductive cycle and components of the nesting environment.

STUDY AREA AND METHODS

This study was conducted on East Amatuli, one of the Barren Islands (58°55'N, 152°10'W), which are located between the Kodiak Island archipelago and the Kenai Peninsula, near the entrance to Cook Inlet. A complete description of the Barren Islands can be found in Bailey (1976).

We studied part of a 50-pair colony in East Amatuli cove. All observations of behavior and activity were made from a blind located at the edge of the auklet colony. Supplementary data were obtained by observing nest sites from a second blind and by hiding among the boulders at a second colony. Preliminary observations were made between 14 May and 1 June 1976. Data collection occurred between 8 June and 28 August 1976, during which period we spent a total of 219 hours observing Parakeet Auklets.

Specific behaviors were described from field notes and from analyzing black and white and color photographs of specific postures and flock arrangements. On 10 occasions, a quantitative analysis of behavioral bouts was made by making 5-minute counts every 15 minutes from dawn to dusk. Colony attendance and habitat utilization were studied by recording all movements between the major recognized habitat components from the time of auklet arrival to departure.

RESULTS AND DISCUSSION

DISTRIBUTION AND ABUNDANCE

Compared with populations in the Aleutians and in the Bering Sea, the number of Parakeet Auklets in the Barren Islands was small. Bailey (1976) estimated the total population to be 900-1000 pairs in nine different colonies on five islands. Colonies varied in size from 10

to 200 pairs and were found where there were boulders and cliffs with suitable crevices.

GENERAL BREEDING BIOLOGY

Parakeet Auklets were already present at the colony when we arrived on 14 May 1976. Our knowledge of the general chronology of the breeding cycle was determined from a small number of eggs and young found in the few accessible rock crevices.

Previous studies on the breeding biology have been conducted much farther north on St. Lawrence Island, Alaska (63°51'N, 171°36'W) (Sealy and Bédard 1973). Egg-laying is roughly three weeks earlier in the Barren Islands than on St. Lawrence. Initiation of egg-laying is strongly influenced by snow melt, which apparently occurred on the Barren Islands between mid-April and early May 1976 (Bailey pers. comm.). Parakeet Auklets lay a single egg clutch, which is incubated for about 36 days. Nestlings fledged on St. Lawrence Island at 77% adult weight after 35 days in the nest crevice.

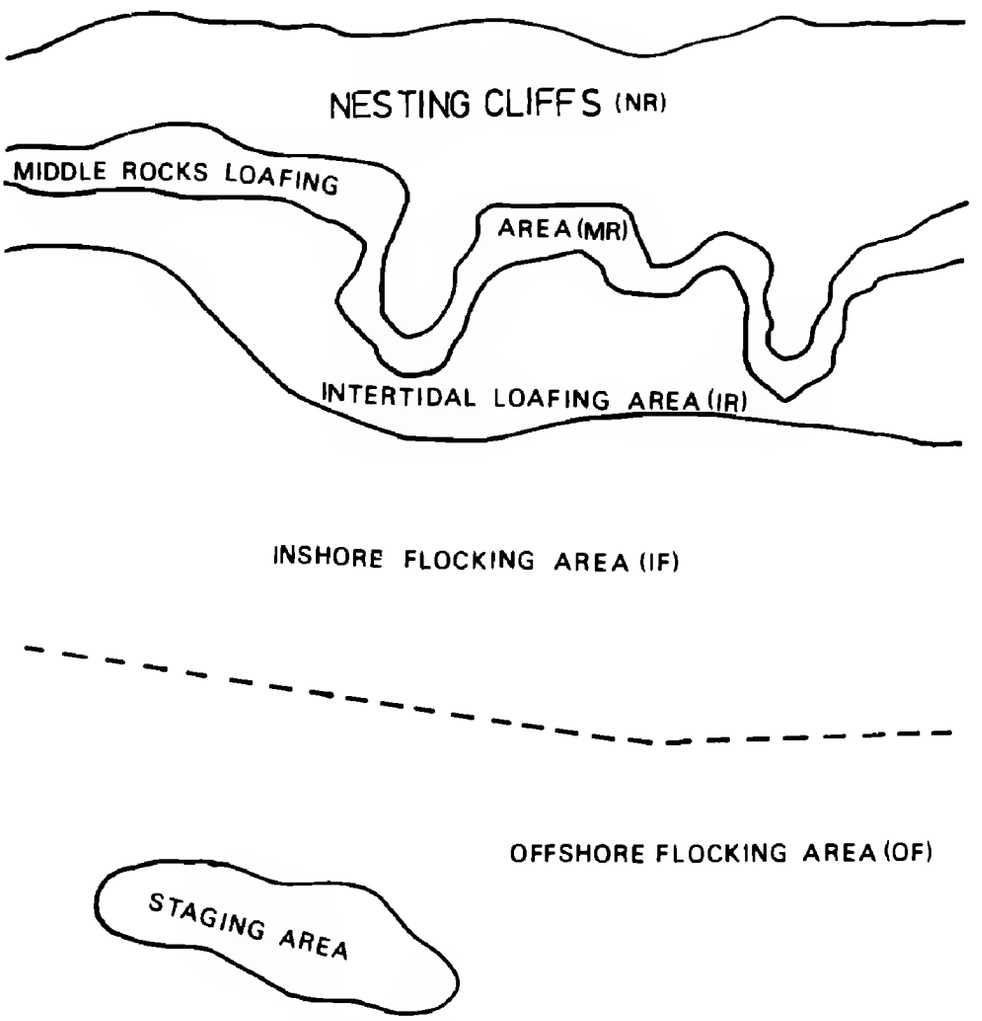

Figure 1. Subdivisions of the nesting environment of the Parakeet Auklet on East Amatuli Island, Alaska.

Table 1. Major types of Parakeet Auklet behavior in the various subdivisions of the nesting environment in the Barren Islands, Alaska.

	SUBDIVISIONS OF THE NESTING ENVIRONMENT			
CATEGORY	NESTING CLIFFS AND ROCKS	MIDDLE ROCKS, INTERTIDAL ROCKS	INSHORE FLOCKING AREA	OFFSHORE FLOCKING AREA
Maintenance Behavior				
Preening	X	X	X	X
Bathing			X	X
Diving			X	X
Displacement and Alarm Behavior				
Bill-dipping			X	X
Wing-flapping		X	X	X
Diving			X	X
Flight intention call	X	X	X	X
Courtship Behavior				
Billing	X	X	X	X
Duetting	X	X	X	X
Copulation	(X)[1]		X	
Agonistic Behavior				
Neck Stretch		X	X	X
Water-chase			X	X
Neck-stretch bill-up		X	X	X
Combat		X	X	
TOTAL	5	8	14	12

[1]Observed by Bédard on St. Lawrence Island.

HABITAT AFFINITIES OF BASIC BEHAVIOR PATTERNS

The nesting environment had terrestrial and aquatic components which were closely interrelated. Figure 1 illustrates our arbitrary subdivisions of the nesting environment; these include nesting cliffs, middle rocks loafing area, intertidal loafing area, inshore flocking area, offshore flocking area and a staging area. We believe these are real and are recognized by Parakeet Auklets. We have illustrated the several displays in the aquatic (Figure 2) and terrestrial components (Figure 3). Our observations concern those behavioral traits manifest during the mid-incubation to fledging stages (Table 1).

MAINTENANCE BEHAVIOR

Preening and bathing. Preening by Parakeet Auklets occurred frequently in most of the habitats. It was often conspicuous when an auklet returned to the water after visiting its nest. Preening was also common among birds resting on rocks near the nest. We rarely observed auklets preening in the intertidal zone. We noted auklets bathing (Figure 2) in all areas of the cove, but particularly in the inshore area where auklets engaged in bathing after they returned from a visit to the nest site.

Diving occurred under three circumstances: 1) feeding, 2) flocking behavior and 3) moving in or out of the inshore water area. Dives of feeding auklets appeared to be deeper than dives with other apparent functions. We observed auklets feeding in Amatuli Cove but most, apparently, fed at sea. When social interactions were intense

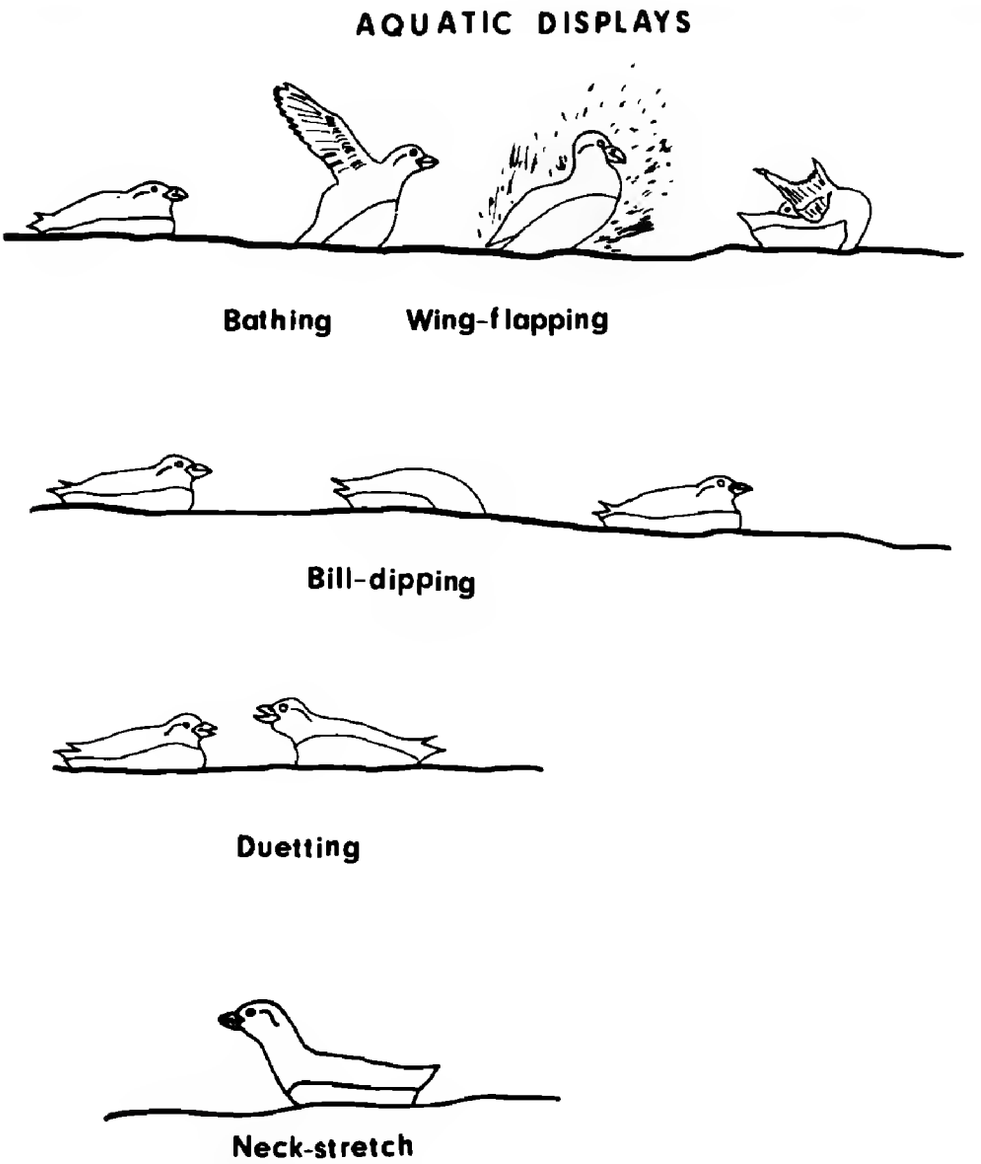

Figure 2. Displays of the Parakeet Auklet performed on the water at East Amatuli Cove, East Amatuli Island, Alaska.

among members of a flock offshore, diving sometimes appeared to occur spontaneously and for no apparent reason. This type of diving was more common in flocks of 10 or more auklets and was always followed by a series of wing flaps.

DISPLACEMENT AND ALARM BEHAVIOR

Bill-dipping. This display (Figure 2) is widespread in aquatic birds (Drent 1965 and references cited by him). It consists of thrusting the bill and forehead under the surface. The intensity of bill-dipping in Parakeet Auklets was variable but was usually high when the birds were preparing to come ashore or were disturbed by the appearance of a predator near the colony.

Wing-flapping. Wing-flapping (Figure 2) was most noticeable after an auklet had dived or when it returned to the water from the colony site. It was less common after a bout of preening, whether on land or water. Wing-flapping occurred with about equal frequency regardless of distance from shore.

Diving. Parakeet Auklets often dived in response to low-flying Glaucous-winged Gulls (*Larus glaucescens*), Black Oystercatchers (*Haematopus bachmani*), or other birds. Newly arriving auklets that joined the flock often elicited diving behavior. The function of this remains obscure but seems to be an integral part of social activities in a colony.

Flight intention call. Flight intention calls are common among many birds and may be elicited by a variety of factors, ambivalence and alarm being common ones. These calls were given by auklets prior to flight from land or from the inshore and to the offshore waters. They were also given with high intensity when a predator approached. The quality of this call was similar to that of the Cassin's Auklet (*Ptychoramphus aleuticus*) (pers. obs.). Flight intention calls have been described for the Pigeon Guillemot (*Cepphus columba*) (Drent 1965) and we have heard them from Rhinoceros Auklets (*Cerorhinca monocerata*) in Washington and Alaska.

COURTSHIP BEHAVIOR

Billing and duetting. Billing is a characteristic courtship behavior of several seabirds, particularly puffins and guillemots (Storer 1952, Drent 1965). Billing and associated vocalizations serve to initiate and maintain the pair bond in most species. In the Parakeet Auklet, however, billing is not well-developed and is usually a part of duetting. Duetting occurred when two auklets vocalized face-to-face at a close distance (3 cm-14 cm), their bills sometimes touching. Duetting usually occurred between members of a pair, but not exclusively. On

several occasions we observed duetting between non-mated birds. Pairs engaged in duetting in the middle rock and nest rock areas and on the water (Figures 2 and 3). In large flocks, the duetting pair often encountered interference from other birds in the flock. This made bouts of duetting difficult to initiate and complete. On 10 June (0950-1015), we observed two copulation attempts on the water which appeared to follow intensive duetting.

AGONISTIC BEHAVIOR

We were unable to demonstrate that Parakeet Auklets had a clearly defined territory. They appeared to vocalize intensively from the nest crevice, but this vocalization could be an expression of either courtship or territoriality. If there is a nest territory, it is very small.

Agonistic behavior was clearly associated with defense of individual distance on both shore and water. This defense included the following specific behaviors: neck-stretch, neck-stretch bill up, and water-chase. We rarely observed direct combat.

Neck-stretch and neck-stretch bill-up. The neck-stretch display occurred in both aquatic and terrestrial habitats (Figures 2 and 3). It is a

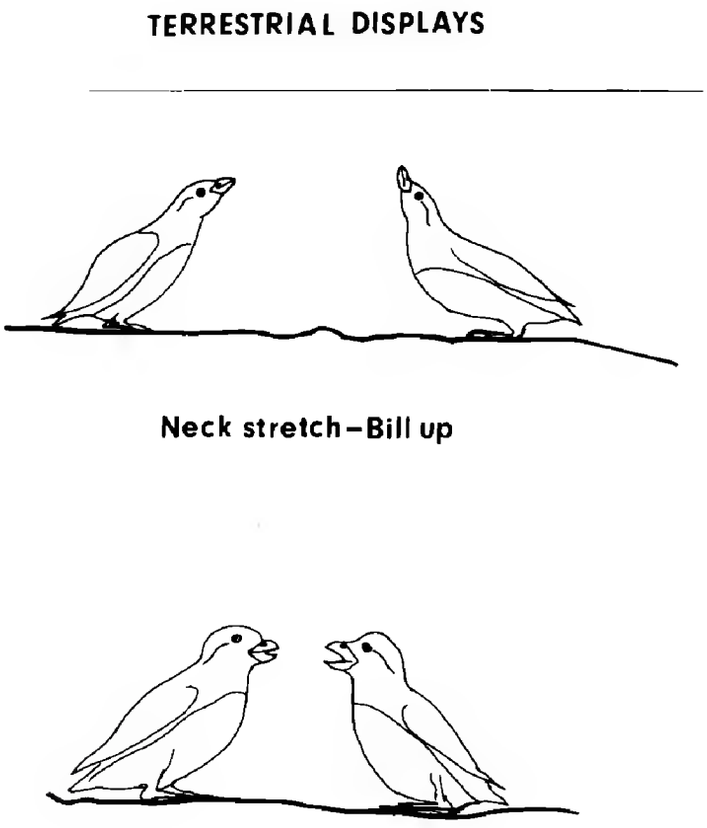

Figure 3. Displays of the Parakeet Auklet performed on land at East Amatuli Island, Alaska.

low intensity display that occurred when a bird's individual distance had been violated. The neck-stretch bill-up display is a high intensity display, usually preceding direct combat.

Water-chase. The water-chase resulted when one bird approached another with its head lowered and lunged at that bird on the water (Figure 2). The second bird would rush away with its bill up but faced away from the chaser. This display apparently was given when the individual distance was violated.

GENERAL FLOCK BEHAVIOR

As the season progressed, the daily arrival time of the Parakeet Auklet at the colony became later (Figure 4). Early in the season, auklets arrived at the staging and offshore flocking area in pairs or small groups. There they socialized by vocalizing, bill-dipping, wing-flapping and other displays. Staging was a characteristic flock behavior during the early part of the breeding cycle. The whole flock or large groups of auklets would leave the staging area and either swim or fly to the inshore flocking area (Figure 1), where most of the social behavior occurred. High intensity bill-dipping occurred as frequently as 30 per bird per minute, while the birds swam in the inshore flocking area.

Once at the inshore flocking area, auklets had a rather distinct flight pathway to the nesting area. Variations in arrival flight behavior of alcids may be attributed to nest site location and type, wing

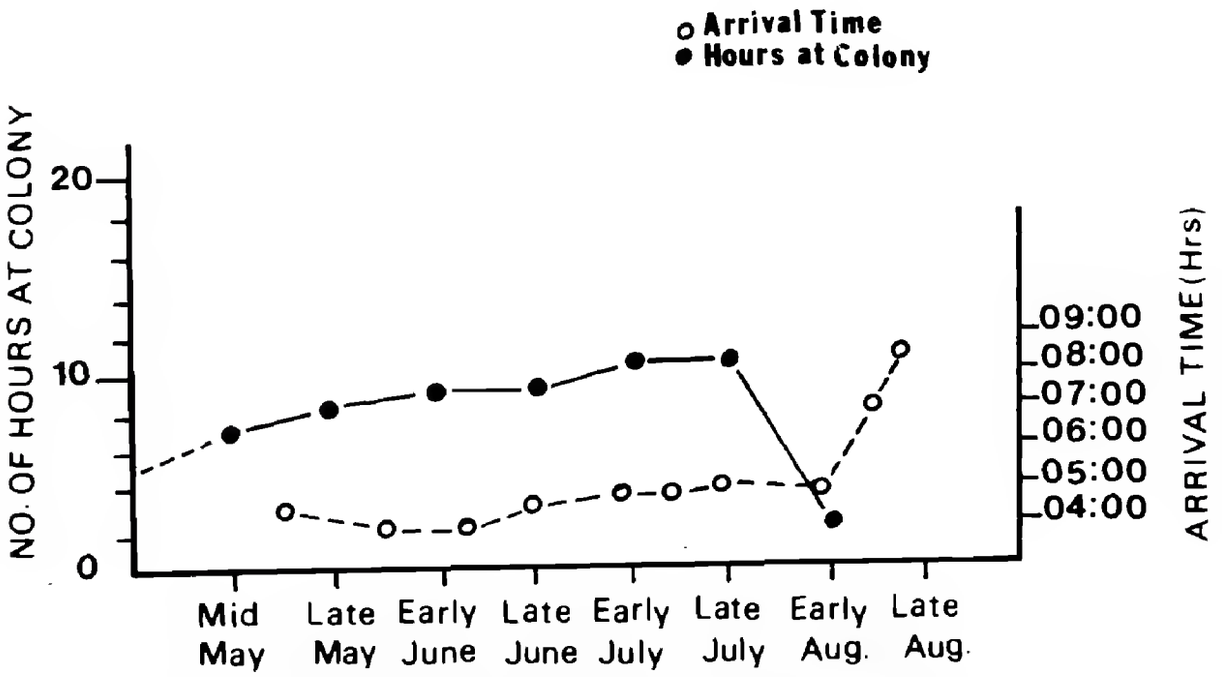

Figure 4. Arrival times and total colony attendance of Parakeet Auklets at East Amatuli Island, Alaska, 1976.

loading characteristics, and presence of avian predators. We characterized alcid arrival flight paths as direct, circular and modified circular (see Figure 5). The modified circular flight of the Parakeet Auklet was typical during incubation when there was much social behavior occurring in the inshore flocking area. During the nestling phase, arrival flights became more direct, and less time was spent in the inshore flocking area.

After socializing in the flocking area, auklets reached the nest by one of three different methods, which were based on where the auklets landed; landing location appeared to depend on the location

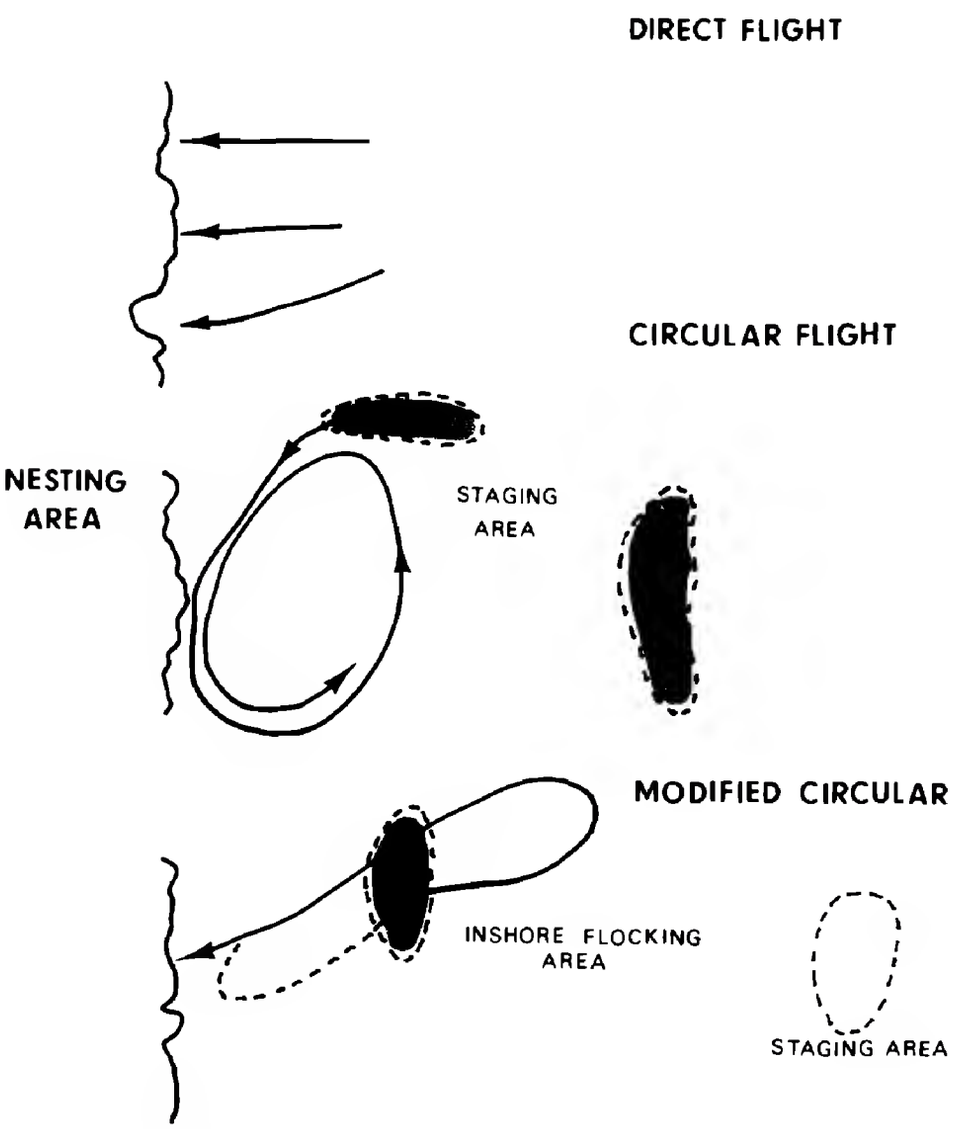

Figure 5. Characteristic arrival flight pathways used by alcids at their colony sites. Direct flights are typical of Common Murres (*Uria aalge*); circular flights are performed by Horned Puffins (*Fratercula corniculata*), Tufted Puffins (*Lunda cirrhata*) and Rhinoceros Auklets (*Cerorhinca monocerata*); the modified circular flight is typical of the Parakeet Auklet.

of the nest. All methods involved the modified circular flight which is a circling flight over water and then a direct flight to the nest (Figure 5). Auklets nesting high on the cliff tended to fly to the nest without landing elsewhere. The function of the circling may have been to acquire enough air speed to fly up about 10 m to the nests. The second method involved landing on the middle rocks; from there the birds slowly walked to the nest site or made short flights. During this time, there were associated behaviors such as duetting, vocalizations, agonistic postures and preening. The third method was similar to the second except that the auklets first landed in the intertidal and then slowly walked through the middle rocks to their nests. These latter birds nearly always swam from the flocking area to rocks immediately beneath their nest sites.

The inshore flocking area was the center of most social behavior. We observed at least 14 different displays by auklets in the inshore flocking area (Table 1). Normal diurnal activity in the early season consisted of repeated flights from the flocking area to the loafing and nest rocks. However, as the demands of feeding young became greater, the amount of social behavior decreased. The average number of auklets in the inshore flocking area decreased from a high of 18 birds in late May to a low of 1 in mid-August (Figure 6). The number of flights made to the rocks showed a different seasonal pattern (Figure 7). There were few direct flights to the rocks early in the season; but as egg-laying progressed, more and more birds flew directly to the rocks. The peak of flight behavior occurred in mid-July, which agrees closely with what Sealy and Bédard (1973) found for St. Lawrence Island. In early August, auklets arriving with engorged gular pouches would spend 15-45 minutes in the inshore flocking area before they delivered food to their nestling. By mid-August, there was little use of the staging or inshore flocking areas. Most auklets flew directly to the inshore flocking area where they spent only a few minutes before they flew to the nest crevice; a few auklets flew directly to the nest crevice without using either the staging or inshore flocking areas.

TIME BUDGET

During the breeding season, the time budget of Parakeet Auklets was divided into the time spent in oceanic and nesting environments. The oceanic portion consisted of a feeding area distant from the nesting environment. The nesting environment consisted of both terrestrial and aquatic components (Figure 1). We determined the time budget for Parakeet Auklets during the latter part of the breeding cycle (Table 2).

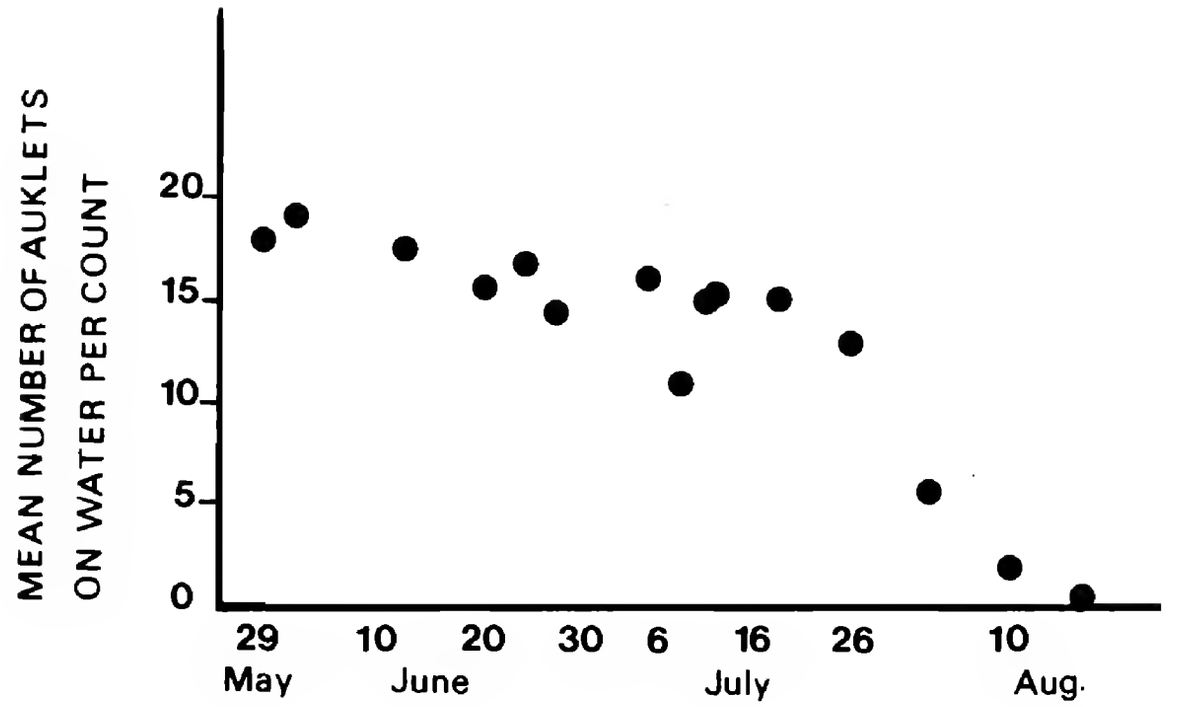

Figure 6. Number of Parakeet Auklets observed in the inshore flocking area at East Amatuli Cove, Barren Islands, Alaska during 1976.

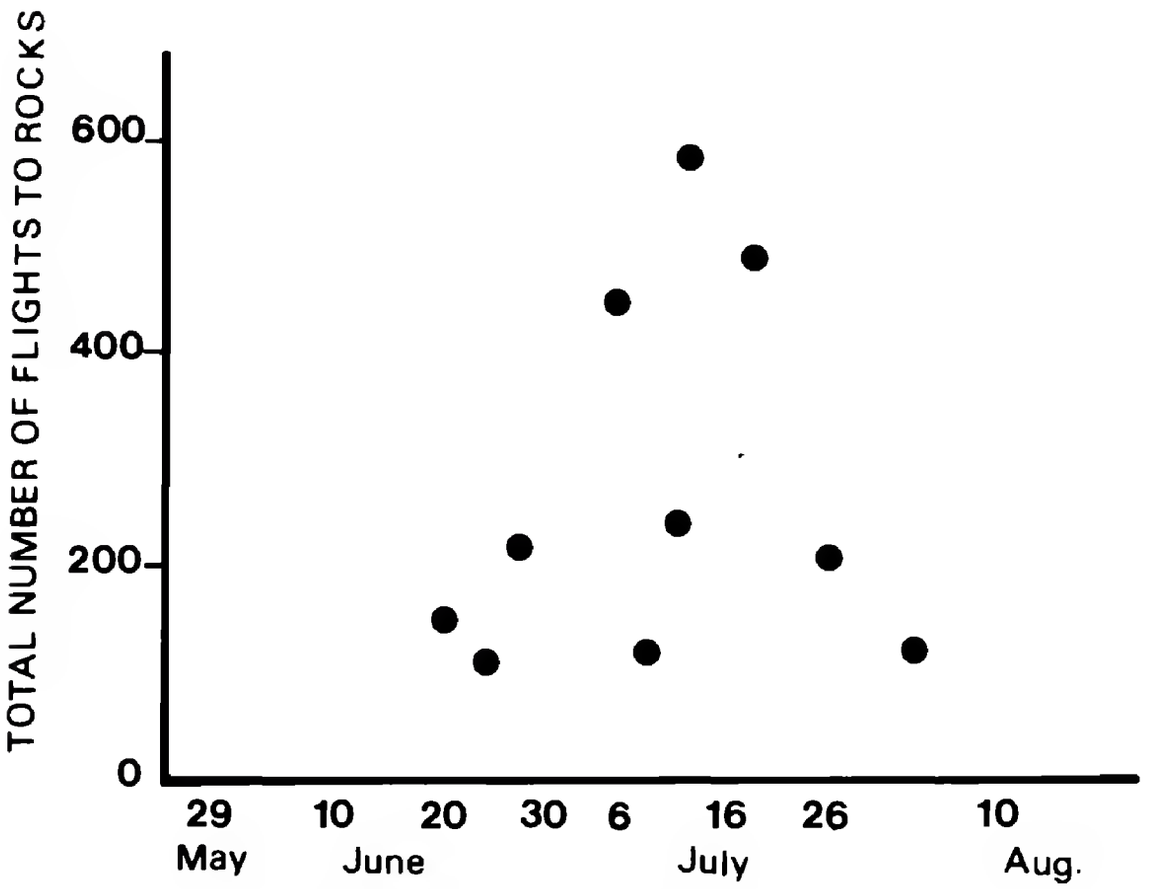

Figure 7. Number of Parakeet Auklet flights per day at a 50-pair colony on east Amatuli Island, Barren Islands, Alaska. The number of flights to rocks was recorded on 10 dates during the 1976 nesting season.

Table 2. Habitat-specific time budget of the Parakeet Auklet on 25 July 1976 in the Barren Islands, Alaska.

HABITAT COMPONENT	NO. OF MINUTES	PERCENT OF TIME BUDGET
Oceanic Environment[1]	860	59.7
Nesting Environment		
Staging Area (S)	35	2.4
Offshore Flocking Area (OF)	103	7.2
Inshore Flocking Area (IF)	307	21.3
Intertidal Loafing Area (IR)	27	1.9
Middle Rocks Loafing Area (MR)	20	1.4
Nesting Cliffs and Rocks (NR)	88	6.1
Total Time in Nesting Area	580	40.3
TOTAL MINUTES (24 hours)	1440	100.0

[1]Birds in the oceanic environment were presumed to be engaged in feeding behavior.

When Parakeet Auklets were in the late stages of incubation or early nestling period, they spent about 60% of their time at sea feeding and about 40% at or near the colony site. Of this, roughly 20% of their time was spent in various types of social behavior in the inshore flocking area.

Figure 4 shows the amount of time auklets spent at the colony site. Early in the season, auklets spent 5 to 7 hours in the cove and nest rocks. During the middle portion of the breeding cycle, they were in the area 9 to 10 hours. After hatching and brooding was completed, Parakeet Auklets abandoned the nesting area; they returned only to feed the young, spending less than 3 hours at the colony site each day.

SUMMARY

The nesting environment of the Parakeet Auklet consisted of both aquatic and terrestrial components. The nesting environment consisted of a staging area, flocking areas closer to shore, and various terrestrial areas. Habitat affinities of 14 different behaviors were described. During the early and middle parts of the nesting cycle, auklets approached the nesting colony site by flying to the inshore flocking area and then making a circular flight to the nesting area. Most social behavior occurred in the inshore flocking area. As the season progressed, social behavior decreased rapidly. During late in-

cubation, Parakeet Auklets spent about 60% of their time at sea. Forty percent of their time was spent at or near the colony site; of this, about 20% was spent engaged in social behavior in the inshore flocking area. Additional studies of the social behavior of other species of auklets may be helpful in further defining their phylogenetic and ecological relationships.

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HABITAT UTILIZATION AND MIGRATION OF LAND BIRDS ON THE BARREN ISLANDS, ALASKA

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The Barren Islands (58°55′ N, 152°10′ W) in the northwestern Gulf of Alaska are the breeding stations for the largest marine bird populations in the region (Bailey 1976); however, little is known about the land birds breeding on or migrating through these islands. The only information available on land birds of the Barren Island area is by Isleib and Kessel (1973) and Bailey (1976). Rausch (1958) described the birds of Middleton Island, an isolated island in the northcentral Gulf of Alaska. In this paper, we briefly discuss the habitat utilization of breeding and migrant birds of the Barren Islands and the timing of their migration. Shorebirds are included because they utilized terrestrial habitat.

STUDY AREA AND METHODS

The Barren Islands are located in the middle of the southern entrance to Cook Inlet between the Kenai Peninsula and the Kodiak Island archipelago (Figure 1). Our camp and censuses were located on 435 ha East Amatuli Island (Figure 2) where we were conducting intensive studies of the breeding marine bird colonies. A more complete description of the Barren Islands can be found in Bailey (1976).

We censused birds 27 times along regular transects during June, July and August 1976. We recorded the number of individual birds of each species in each major habitat type along the 2.4 km census route. It normally took 1.5 hours to walk the transects. Eight habitat types were delineated, based on vegetative changes associated with geologic discontinuities (N. Manuwal, in press).

The vegetation of the beach community was restricted to a narrow band along the beach side of the dunes. Seabeach Sandwort (*Honckenya peploides*) and dune grass (*Elymus arenarius*) were the dominant species. The dune habitat was dominated by dune grass and other tall herbaceous plants, especially Cow Parsnip (*Heraculum lanatum*). The boulder habitat was formed by erosion of the hillside. The vegetation, which was lush due to seepage among the 1 m size boulders, was dominated by tall herbaceous plants and ferns such as Cow Parsnip, fireweed (*Epilobium angustifolium*) and Lady Fern (*Athyrium filix-femina*). The willow habitat was along a stream and was dominated by willow (*Salix*) shrubs. These habitats had an average height of 1 m.

The grassland-meadow habitat occurred on the valley bottom and lower hillsides. It was floristically diverse. Several genera of grasses (*Festuca* and *Deschampsia*) were prevalent as well as forbs such as anemone (*Anemone narcissiflora*) and bunchberry (*Cornus suecica*). The riparian habitat was similar floristically; however, a stream ran through it and therefore more hydrophilic plants occurred. The average height of these habitats was 0.5 m.

The crowberry and fellfield habitats averaged 10 cm in height. The crowberry habitat was found on solifluction slopes; the fellfield habitat was in an area of high winds due to a "saddle" in the cliffs. Both habitats were characterized by crowberry (*Empetrum nigrum*).

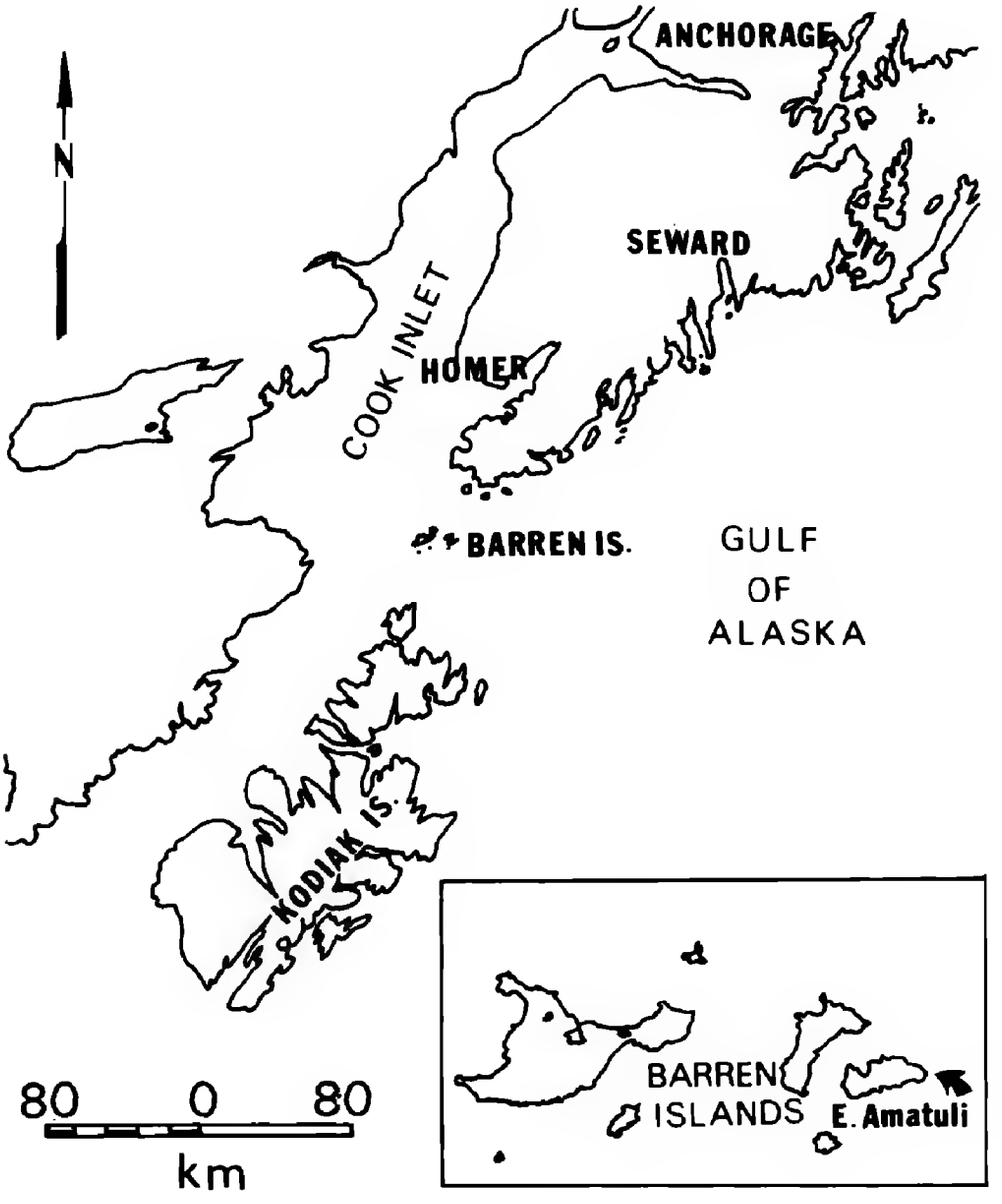

Figure 1. Location of the Barren Islands, Alaska.

RESULTS AND DISCUSSION

BREEDING BIRDS AND HABITATS

We found seven species of land birds breeding on East Amatuli Island; only four of these occurred on our census routes (Table 1). The Savannah Sparrow was easily the most abundant species. In descending order of abundance, the other species were the Golden-crowned Sparrow, Water Pipit, Gray-crowned Rosy Finch, Winter Wren, Common Raven and Peregrine Falcon. With the exception of Ushaget Island, which has a well-developed Sitka Spruce (*Picea sitchensis*) forest, the breeding avifauna of the other islands was nearly identical to that of East Amatuli Island.

We observed Savannah Sparrows in all habitat types; they preferred nesting in the grassland-meadow, crowberry and boulder habitats and used the riparian and willow habitats as escape cover and feeding areas. After fledging, young and adult Savannah Sparrows seemed to avoid the crowberry and fellfield habitats which offered little cover. By fledging time, the dune grass was nearly 1 m high in the dunes, so sparrows spent more time there than at any other time of the year (Figure 3). The large peaks in numbers between 30 June and 30 July represent the fledging of Savannah Sparrows (Figure 3).

Figure 2. Large valley on East Amatuli Island, Barren Islands, Alaska, showing topography and major habitat features.

The Water Pipit was more specialized in its habitat preferences than the Savannah Sparrow. It avoided areas of tall vegetation and was most abundant in the fellfield, crowberry and grassland-meadow habitats (Figure 4). We occasionally observed it feeding on the beach. Adults fed fledged young in the fellfield and crowberry habitats. In the second week of August the breeding population apparently left the island. Migrant pipits appeared later and were found primarily in the crowberry, grassland-meadow and beach habitats.

Most breeding Golden-crowned Sparrows were in the grassland-meadow and boulder habitats and seemed to prefer relatively tall herbaceous cover. When flushed, many flew to nearby willow or riparian areas. Nests were usually located near the base of Cow Parsnip or angelica (*Angelica lucida*). This species was rarely observed outside its preferred habitat.

Gray-crowned Rosy Finches nested at the higher elevations of the island but frequently fed in low elevation fellfield and crowberry habitats. In late May we observed several rosy finches feeding on the previous year's seeds of Cow Parsnip and angelica which they gleaned off the edges of snow banks near the top of the island. Later in sum-

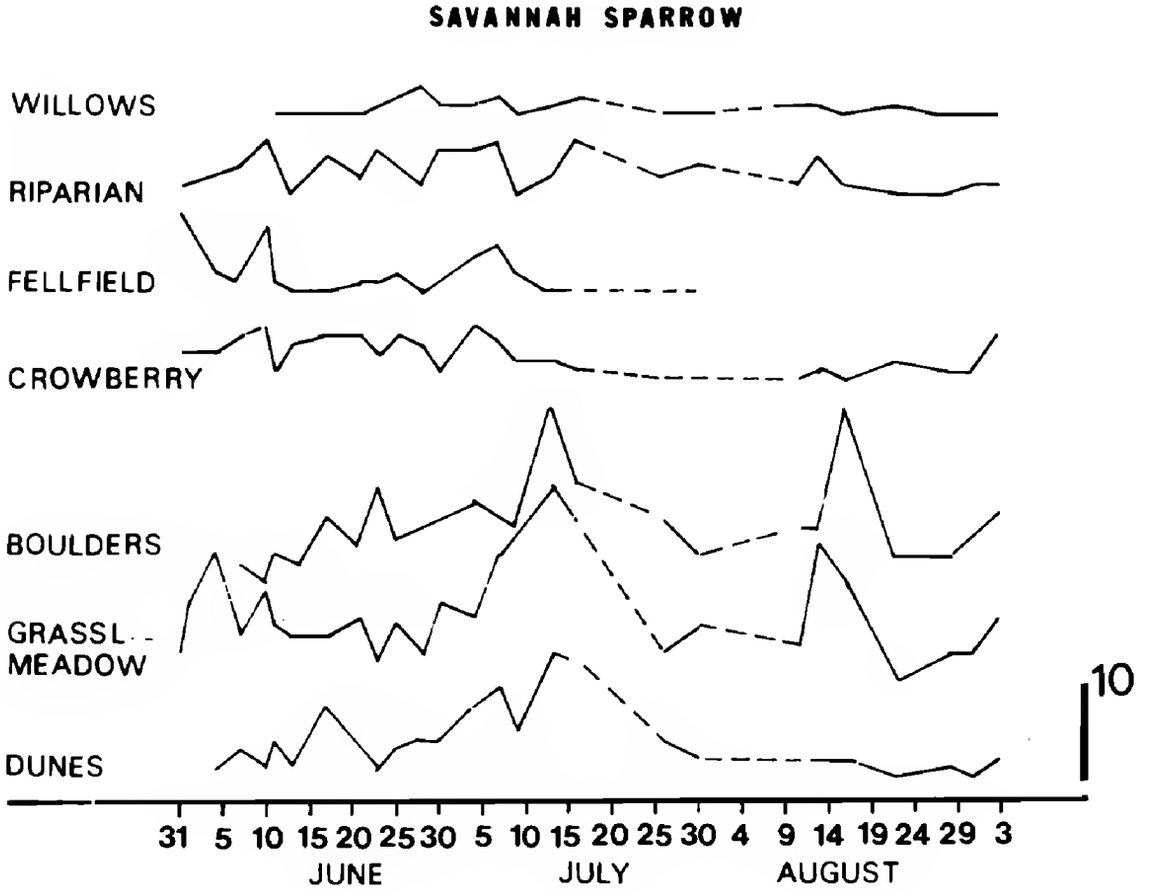

Figure 3. Relative abundance of the Savannah Sparrow in major habitats along census transects, East Amatuli Island, Alaska, summer 1976. Vertical scale on right is number of individuals.

mer, we also saw them in the boulder area where they perched on top of large rocks or drank water from small puddles at the base of the rocks. By late July, adult and fledgling rosy finches were using the beach area and the steep south slopes and cliffs of the island for feeding.

Winter Wrens nested on the south slopes of the island, primarily in patches of Cow Parsnip and dense grass. Common Ravens and Peregrine Falcons nested on high cliffs.

BIRD MIGRATION AND HABITATS

We observed 53 land bird species from 14 May to 3 September 1976, of which 36 species were found on our transect routes through major habitats. Table 2 indicates when we observed these species. In general, spring migration was over by the first week of June. Autumn migration began around the first week of August and was heavy when we departed on 3 September. Several species that nested on Ushaget Island (or perhaps the mainland) visited the island outside the migration periods. These included the Tree Swallow, Hermit Thrush, White-winged Crossbill, Belted Kingfisher, American Robin, Bald Eagle, Golden Eagle, Merlin and Short-eared Owl.

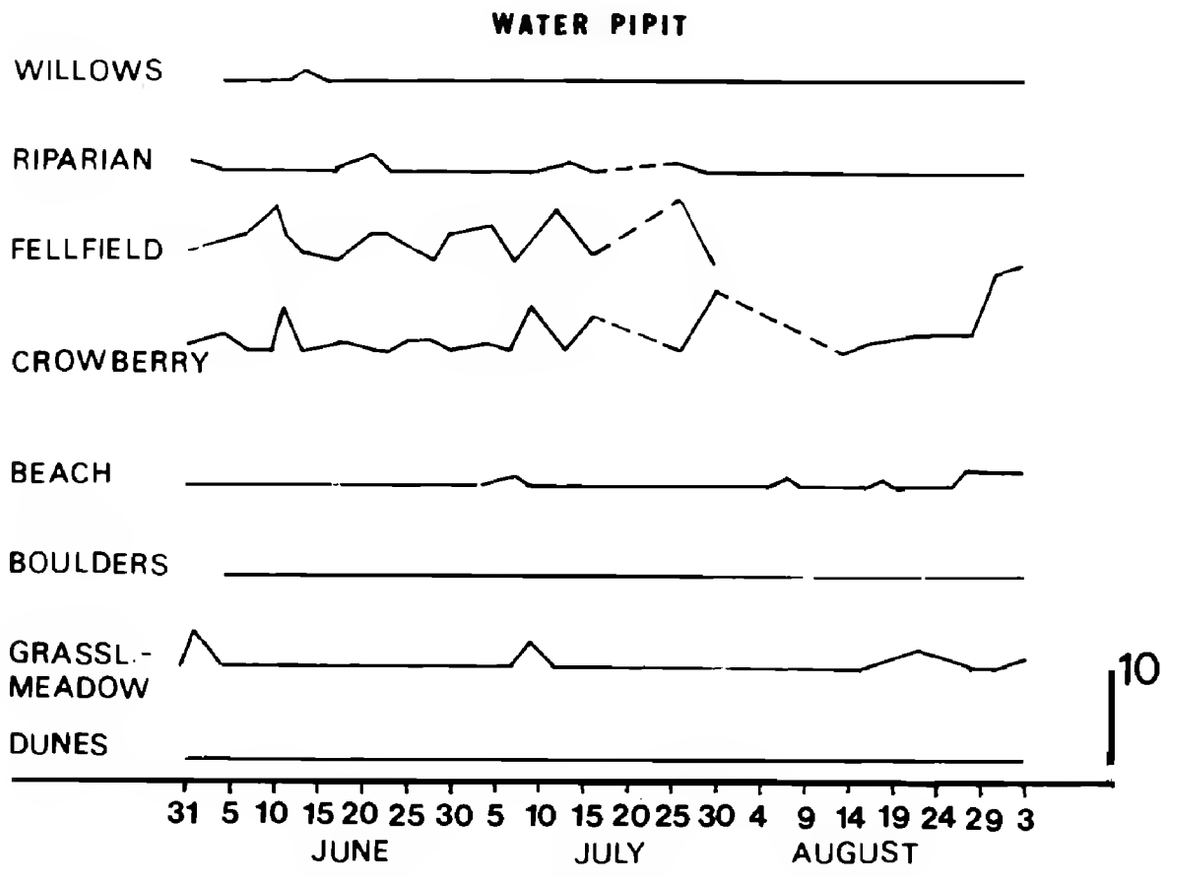

Figure 4. Relative abundance of the Water Pipit in major habitats along census transects, East Amatuli Island, Alaska, summer 1976. Vertical scale on right is number of individuals.

Table 1. Number of individuals observed per census in each habitat type, East Amatuli Island, Barren Islands, Alaska, summer 1976.

	HABITAT TYPES							
	Dunes	Grassland-Meadow	Boulders	Crowberry	Willows	Fellfield	Riparian	Beach
Number of censuses	27	27	27	27	20	27	27	13
LAND BIRDS								
Empidonax spp.					0.10			
Western Wood Pewee					0.05			
Horned Lark						0.04		
Violet-green Swallow						0.11		
Tree Swallow				0.07				
*Bank Swallow								0.15
*Winter Wren			0.04	0.10				
Varied Thrush			0.07		0.15			
Hermit Thrush		0.07	0.07	0.07	0.10	0.11	0.33	0.31
Gray-cheeked Thrush		0.04						
Wheatear						0.04		
Golden-crowned Kinglet					0.10			
Ruby-crowned Kinglet					0.05			
*Water Pipit		0.41		1.96	0.05	1.78	0.19	0.77
Orange-crowned Warbler			0.07	0.04	0.35			
Yellow Warbler	0.04	0.04	0.30		0.80		0.07	
Wilson's Warbler	0.04	0.07	0.26		0.50	0.04	0.19	0.08
*Gray-crowned Rosy Finch			0.41	0.41		0.30	0.04	
Common Redpoll					0.15			
Pine Siskin			0.22				0.11	
White-winged Crossbill					0.05			
*Savannah Sparrow	3.60	8.82	7.37	2.59	0.80	1.33	3.48	2.08
White-crowned Sparrow				0.04				
*Golden-crowned Sparrow	0.19	0.85	3.85	0.30	1.35	0.19	1.11	
Fox Sparrow	0.37	0.22	1.30	0.11	1.10		0.11	1.08
Lincoln's Sparrow					0.05			
*Song Sparrow	0.04		0.07					0.38

Table 1 continued: Number of individuals observed per census in each habitat type, East Amatuli Island, Barren Islands, Alaska 1976.

	HABITAT TYPES							
	Dunes	Grassland-Meadow	Boulders	Crowberry	Willows	Fellfield	Riparian	Beach
Number of censuses	27	27	27	27	20	27	27	13
WATERFOWL AND SHOREBIRDS								
Harlequin Duck								0.08
Semipalmated Plover								0.16
Black Turnstone								0.08
Common Snipe		0.04						
Spotted Sandpiper								0.39
Least Sandpiper								0.39
*Glaucous-winged Gull								7.31
Mew Gull								0.08
Black-legged Kittiwake								0.08

*Denotes species nesting

Table 2. Seasonal occurrence of birds on East Amatuli Island, Barren Islands, Alaska, 1976. Numbers are the number of days in which the species was observed during a 5-day interval. Dashed lines indicate no observations of the species for the 5-day interval.

	May			June						July	
	14-18	19-23	24-28	29-2	3-7	8-12	13-17	18-22	23-27	28-2	3-7
Rough-legged Hawk, *Buteo lagopus*	—	1	—	—	—	—	—	—	—	—	—
Golden Eagle, *Aquila chrysaetos*	—	—	—	—	—	1	—	—	—	—	—
*Bald Eagle, *Haliaeetus leucocephalus*	5	5	5	5	5	5	5	5	5	5	5
*Peregrine Falcon, *Falco peregrinus*	5	5	5	5	5	5	5	5	5	5	5
Merlin, *Falco columbarius*	—	—	—	—	—	—	—	—	—	—	—
*Black Oystercatcher, *Haematopus bachmani*	5	5	5	5	5	5	5	5	5	5	5
Short-eared Owl, *Asio flammeus*	—	—	—	1	—	—	—	—	—	—	—
Belted Kingfisher, *Megaceryle alcyon*	—	—	—	—	—	—	—	—	—	—	—
Says Phoebe, *Sayornis saya*	—	—	—	—	—	—	—	—	—	—	—
Empidonax spp.	—	—	—	—	—	—	—	—	—	—	—
Western Wood Pewee, *Contopus sordidulus*	—	—	—	—	—	1	—	—	—	—	—
Horned Lark, *Eremophila alpestris*	—	—	1	—	—	—	—	—	—	—	—
Violet-green Swallow, *Tachycineta thalassina*	2	3	1	4	—	—	—	—	—	—	—
Tree Swallow, *Iridoprocne bicolor*	—	1	—	2	1	—	—	—	—	—	—
*Bank Swallow, *Riparia riparia*	—	—	—	4	5	5	5	5	5	5	5
*Common Raven, *Corvus corax*	5	5	5	5	5	5	5	5	5	5	5
*Winter Wren, *Troglodytes troglodytes*	5	5	5	5	5	5	5	5	5	5	5
American Robin, *Turdus migratorius*	—	—	—	—	—	—	—	—	—	—	—
Varied Thrush, *Ixoreus naevius*	1	—	—	—	—	—	—	—	—	—	—
Hermit Thrush, *Catharus guttatus*	5	5	5	5	1	1	—	—	—	—	1

Table 2 continued. Seasonal occurrence of birds on East Amatuli Island, Barren Islands, Alaska, 1976.

	August						September					
	8-12	13.17	18-22	23-27	28-1	2-6	7-11	12-16	17-21	22-26	27-31	1-6
Rough-Legged Hawk, *Buteo lagopus*	—	—	—	—	—	—	—	1	1	—	—	—
Golden Eagle, *Aquila chrysaetos*	—	—	—	—	—	—	—	—	—	—	—	—
*Bald Eagle, *Haliaeetus leucocephalus*	5	5	5	5	5	5	5	5	5	5	5	5
*Peregrine Falcon, *Falco peregrinus*	5	5	5	5	5	5	5	5	5	5	5	5
Merlin, *Falco columbarius*	—	—	—	—	—	—	—	—	—	1	—	—
*Black Oystercatcher, *Haematopus bachmani*	5	5	5	5	5	5	5	5	5	5	5	5
Short-eared Owl, *Asio flammeus*	—	—	—	—	—	—	—	—	—	—	—	—
Belted Kingfisher, *Megaceryle alcyon*	—	—	—	—	1	—	—	—	—	—	—	—
Says Phoebe, *Sayornis saya*	—	—	—	—	—	—	—	—	—	—	3	—
Empidonax spp.	—	—	—	—	—	—	—	—	1	—	—	—
Western Wood Pewee, *Contopus sordidulus*	—	—	—	—	—	—	—	—	—	—	—	—
Horned Lark, *Eremophila alpestris*	—	—	—	—	—	—	—	—	—	—	—	—
Violet-green Swallow, *Tachycineta thalassina*	—	—	—	—	1	1	2	2	—	1	—	—
Tree Swallow, *Iridoprocne bicolor*	—	1	—	—	—	—	1	—	—	—	—	—
*Bank Swallow, *Riparia riparia*	5	5	5	5	5	5	5	5	—	—	—	—
*Common Raven, *Corvus corax*	5	5	5	5	5	5	5	5	5	5	5	5
*Winter Wren, *Troglodytes troglodytes*	5	5	5	5	5	5	5	5	5	5	5	5
American Robin, *Turdus migratorius*	—	—	—	—	—	1	—	—	—	—	—	—
Varied Thrush, *Ixoreus naevius*	—	—	—	—	3	2	4	5	5	5	5	3
Hermit Thrush, *Catharus guttatus*	—	—	—	—	—	—	1	—	—	1	1	2

Table 2 continued. Seasonal occurrence of birds on East Amatuli Island, Barren Islands, Alaska, 1976.

	May			June					July			
	14-18	19-23	24-28	29-2	3-7	8-12	13-17	18-22	23-27	28-2	3-7	8-12
Gray-cheeked Thrush, *Catharus minimus*	—	—	—	—	—	1	—	—	—	—	—	—
Wheatear, *Oenanthe oenanthe*	—	—	1	—	—	—	—	—	—	—	—	—
Golden-cr. Kinglet, *Regulus satrapa*	—	—	—	—	—	—	—	—	—	—	—	—
Ruby-cr. Kinglet, *Regulus calendula*	—	—	—	—	—	—	—	—	—	—	—	—
*Water Pipit, *Anthus spinoletta*	5	5	5	5	5	5	5	5	5	5	5	5
Orange-cr. Warbler, *Vermivora celata*	—	—	—	—	1	2	—	—	—	—	—	—
Yellow Warbler, *Dendroica petechia*	—	—	—	—	1	5	—	—	—	—	—	—
Wilson's Warbler, *Wilsonia pusilla*	—	—	1	1	3	5	—	—	—	—	—	—
Rusty Blackbird, *Euphagus carolinus*	—	—	—	—	—	—	—	—	—	—	—	—
*Gray-cr. Rosy Finch, *Leucosticte tephrocotis*	5	5	5	5	5	5	5	5	5	5	5	5
Common Redpoll, *Carduelis flammea*	—	—	—	—	—	—	—	—	—	—	—	—
Pine Siskin, *Carduelis pinus*	—	—	—	—	—	—	—	—	—	—	—	—
White-w. Crossbill, *Loxia leucoptera*	—	—	—	—	—	1	—	—	—	—	—	—
*Savannah Sparrow, *Passerculus sandwichensis*	5	5	5	5	5	5	5	5	5	5	5	5
White-cr. Sparrow, *Zonotrichia leucophrys*	—	—	—	1	1	—	—	—	—	—	—	—
*Golden-cr. Sparrow, *Zonotrichia atricapilla*	5	5	5	5	5	5	5	5	5	5	5	5
Fox Sparrow, *Passerella iliaca*	5	5	5	5	5	5	5	1	—	—	—	—
Lincoln's Sparrow, *Melospiza lincolnii*	—	—	—	—	—	—	—	—	—	—	—	—
*Song Sparrow, *Melospiza melodia*	5	5	5	5	5	5	5	5	5	5	5	5
Lapland Longspur, *Calcarius lapponicus*	—	—	—	1	—	—	—	—	—	—	—	—

Table 2 continued. Seasonal occurrence of birds on East Amatuli Island, Barren Islands, Alaska, 1976.

	August										September
	13-17	18-22	23-27	28-1	2-6	7-11	12-16	17-21	22-26	27-31	1-6
Gray-cheeked Thrush, *Catharus minimus*	—	—	—	—	—	—	—	—	—	—	
Wheatear, *Oenanthe oenanthe*	—	—	—	—	—	—	—	—	—	—	—
Golden-cr. Kinglet, *Regulus satrapa*	—	—	—	—	—	—	—	1	1	2	—
Ruby-cr. Kinglet, *Regulus calendula*	—	—	—	—	—	—	—	—	—	1	—
*Water Pipit, *Anthus spinoletta*	5	5	5	5	5	5	5	5	5	5	5
Orange-cr. Warbler, *Vermivora celata*	—	—	—	—	—	1	—	—	2	1	3
Yellow Warbler, *Dendroica petechia*	—	—	—	—	—	1	1	2	2	4	5
Wilson's Warbler, *Wilsonia pusilla*	—	—	—	—	—	—	—	1	3	4	4
Rusty Blackbird, *Euphagus carolinus*	—	—	—	—	—	—	—	—	1	2	2
*Gray-cr. Rosy Finch, *Leucosticte tephrocotis*	5	5	5	5	5	5	5	5	5	5	5
Common Redpoll, *Carduelis flammea*	—	—	—	—	—	2	2	3	3	1	—
Pine Siskin, *Carduelis pinus*	—	—	—	—	—	4	5	5	4	2	3
White-w. Crossbill, *Loxia leucoptera*	3	—	—	2	—	—	—	4	1	—	—
*Savannah Sparrow, *Passerculus sandwichensis*	5	5	5	5	5	5	5	5	5	5	5
White-cr. Sparrow, *Zonotrichia leucophrys*	—	—	—	—	—	—	—	—	—	—	—
*Golden-cr. Sparrow, *Zonotrichia atricapilla*	5	5	5	5	5	5	5	5	5	5	5
Fox Sparrow, *Passerella iliaca*	—	—	—	—	—	2	5	5	5	5	5
Lincoln's Sparrow, *Melospiza lincolnii*	—	—	—	—	—	—	—	—	—	—	1
*Song Sparrow, *Melospiza melodia*	5	5	5	5	5	5	5	5	5	5	5
Lapland Longspur, *Calcarius lapponicus*	—	—	—	—	—	—	—	—	2	—	—

*Denotes nesting species

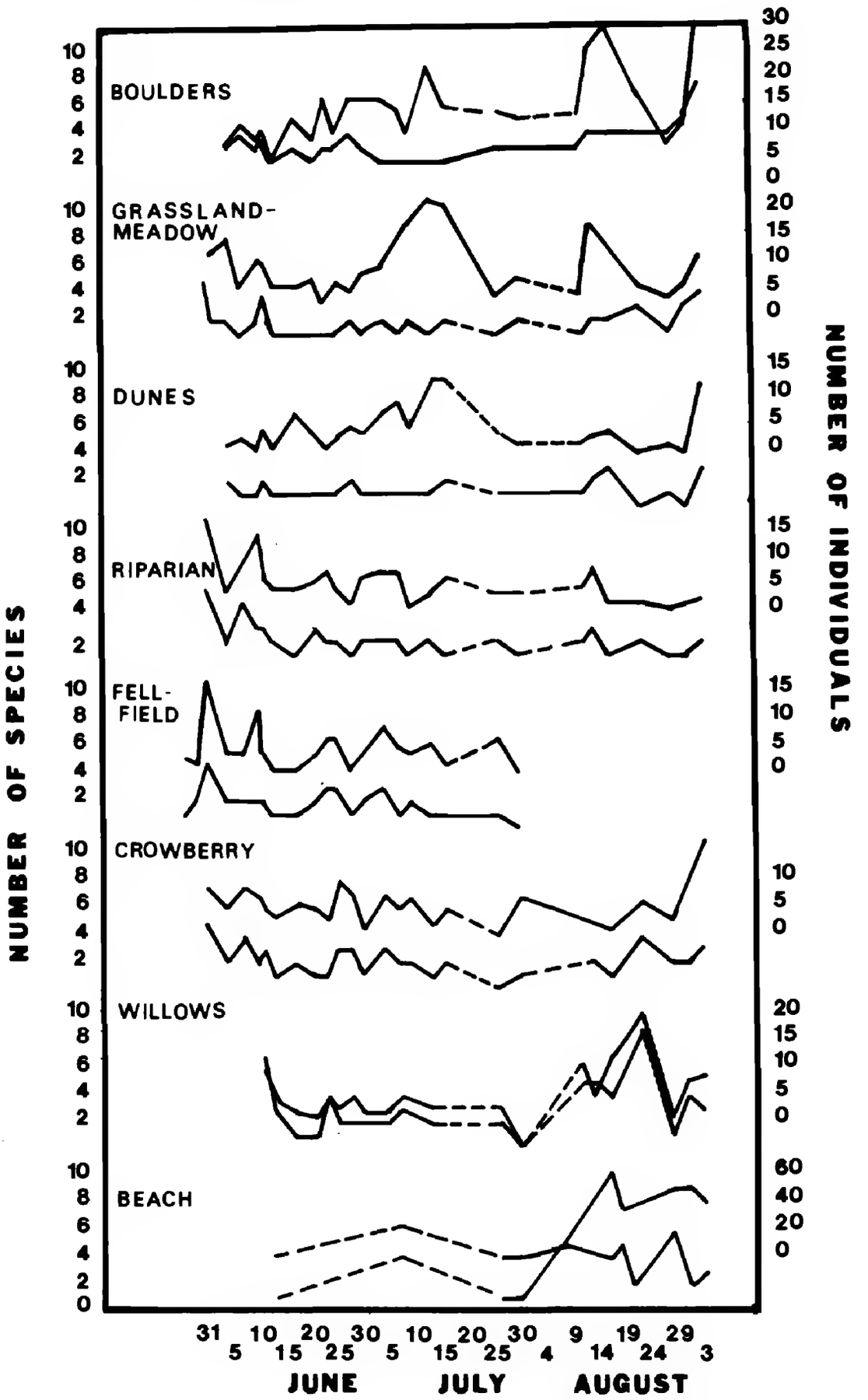

Figure 5. Number of species and individuals in the major habitats of East Amatuli Island, Alaska, during summer 1976. Upper line in each pair is number of individuals. Lower line is number of species. Dashed line represents periods when no data were taken.

A severe storm front passed through the Barren Islands between 5 and 10 August and was immediately followed by the first large southerly movement of migrants (Figure 5). At this time, large numbers of Hermit Thrushes, Orange-crowned Warblers, Yellow Warblers, Common Redpolls, Pine Siskins, Savannah Sparrows, Fox Sparrows, Semipalmated Plovers, Spotted Sandpipers, Solitary Sandpipers, Wandering Tattlers, Least Sandpipers, Western Sandpipers and Rough-legged Hawks visited the island. These migrants used all the lowland habitats except crowberry and fellfields (Figure 5). Migrants were particularly abundant in the boulder, willow, grassland-meadow, beach and dune habitats. Isolated spruces scattered through parts of the grassland-meadow habitat were used for cover by large numbers of sparrows and thrushes.

DISCUSSION

The low number of breeding land bird species on East Amatuli Island is characteristic of structurally simple vegetation types. A thorough study of Ushaget Island is necessary before a comparison can be made of the avifauna of the entire Barren Islands group with the neighboring mainland; however, since the distance to the Kenai Peninsula is only 19 km, the unusual distribution patterns normally associated with more isolated islands would not be anticipated.

There is only one somewhat peculiar feature of the Barren Island avifauna. The absence of the Lapland Longspur is puzzling since "adequate" habitat seems abundant in the Barren Islands. Murie (1959) reported this species to be the most common passerine throughout the Aleutian chain, Alaska Peninsula and adjacent islands. Isleib and Kessel (1973) indicate that this species is "probably a local breeder in the North Gulf Coast-Prince William Sound region," where Rausch (1958) found it breeding on Middleton Island.

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Sketch by Steve Riddle

NOTES

USE OF NEST BOXES BY DIPPERS ON SAGEHEN CREEK, CALIFORNIA

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The Dipper (*Cinclus mexicanus*) is a fairly common breeding bird along streams of the Sierra Nevada. Densities of four pairs per 1.6 km of stream have been recorded in favorable situations (Grinnell and Miller 1944:328). On Sagehen Creek in eastern California, 13 km north of Truckee, Nevada County, I found only one pair of Dippers in 1974 and again in 1975, along 8 km of stream. Recessed rock faces of the sort favored by Dippers for nesting are essentially non-existent along Sagehen Creek, and I concluded that lack of nest sites might be limiting the population. Von Jost's (1970) report of successful use of nest boxes by European Dippers (*C. cinclus*) led to the present experiment. Twelve boxes were erected along Sagehen Creek. All were built of ¾ inch plywood following the design (20 cm wide, 18 cm deep, 16 cm high) recommended by von Jost. The boxes were numbered consecutively from the headwaters downstream.

Figure 1. Nest box 1 with three young Dippers, almost ready to fledge, Sagehen Creek, Nevada County, California, July 1975.

Nest box 1 was fastened 0.6 m above the water in a metal roadway culvert (Figure 1). Nest boxes 2, 3 and 6 were nailed to trees that had fallen across the creek. These boxes were centered over the stream and varied from 0.3 - 0.6 m above the water. Nest box 7 was secured 1.2 m above the water on the side of a building located on the edge of the creek. Nest boxes 4, 5, 8, 9 and 10 were nailed to trees as near to the edge of the creek as possible. Nest boxes 11 and 12 were attached to the concrete wall of a highway bridge, 1.2 m above the water.

In the 5 year period 1975-1979, seven broods totaling 21 Dippers fledged from boxes 1, 7 and 11.

Nest Box 1 was installed 3 April 1975. Four eggs were found in the box, 10 June 1975. Three Dipper nestlings were banded 11 July. Two young banded Dippers were observed feeding in the creek 15 July. Presumably the three nestlings fledged between 11 and 15 July. The box was not used in subsequent years. This upstream location is generally under heavy snow when the Dippers start nesting in April.

Nest Box 7 was attached to a streamside building 1 May 1974. Three Dippers fledged from the box 8 June 1975. On 27 May 1976, two eggs and two young were in the box. The nest was intact but empty 8 June. One Dipper nestling was found dead in the creek near the nest box. No renesting attempt was made that year. Nest building began again 4 April 1977, and by 25 April five eggs were in the box. Four Dipper nestlings were banded 24 May and fledged 6 June. On 27 April 1978 five eggs were in the box. On 1 May the nest was partly destroyed and eggs removed by some predator. On 4 May the pair of Dippers started to rebuild the nest. The second nesting effort was successful, and four Dipper nestlings were banded 7 June and fledged 22 June. The nest was occupied again 12 April 1979 and contained five eggs 25 April. Four of the eggs hatched 10 and 11 May. During the night of 27 May the nest was raided by a predator, presumably a Pine Marten (*Martes americana*) that was living in an adjoining building. One live nestling was found and replaced in the nest. It fledged about 2 June.

Nest Box 11 was secured under a concrete highway bridge 15 March 1978. A nest was nearly completed 8 April 1978 and four eggs were in the box on 27 April. Three nestlings were banded 7 June and fledged between 7 and 11 June. On 30 April 1979 I found five eggs in the nest and on 16 May there were four young. Three of these fledged between 19 and 21 June.

Other Nest Boxes. Nest box 3, nailed to a tree that had fallen across the creek, contained a small amount of nesting material in the spring of 1977, but the nest was not completed. None of the other boxes was used during the study period. It seems significant that the only nest boxes used by Dippers were attached to vertical structures (inside a culvert, concrete bridge abutment, side of building). No nest attached to a tree was occupied, possibly because of vulnerability to predators.

The original population of one pair of nesting Dippers had at least doubled to two pairs by 1978 and 1979. The population will continue to be monitored in future years.

I am grateful to A. Starker Leopold for advice during the study and for editorial review of this note.

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AN AZTEC THRUSH IN ARIZONA

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In the morning of 30 May 1978 I found an Aztec Thrush (*Ridgwayia pinicola*) at 1700 m feeding on a wet dirt road at the bottom of Huachuca Canyon, Huachuca Mountains, Cochise County, Arizona. My field notes describe the bird thus:
"Sooty brown head, back, upper breast, and wings. Belly and lower breast white. Breast has dark spots clustered along the cline between the brown hood and white breast. Face with a hint of light malar streak and definite light stripe above the eye. Wings with white spots in primaries and secondaries. Tail short and dark with white spots at tip and white oval spots at the upper base next the rump. A black vertical patch from the legs up to the side of the rump under the wings. Beak dark, legs and feet pink."

The bird fed robin-like in wet shady areas under sycamores (*Platanus wrightii*), walnut (*Juglans major*) and evergreen oaks (*Quercus emoryi, Quercus arizonica, Quercus hypoleucoides*), turning over leaves and pecking in damp areas. Upon finding what appeared to be large insect larvae, it would sometimes fly into a tree to eat its meal, then drop down and resume feeding. It occasionally and unsuccessfully darted after dragonflies. When not feeding it usually sat motionless in a tree or stood quietly on the ground in the leafy litter by a large rock or tree trunk.

At first it was quite tame and fed almost constantly, which indicated to me that it had just arrived. After a few days, no doubt partially because of the estimated 300 to 400 people who came to see it, the thrush became increasingly hard to find. It fed only in the early morning and late afternoon, spending the rest of the day in a tree. Had it not been for its call note, a raspy and buzzy "zrrip," the thrush would have been hard to find because it blended so well with the oak branches.

Figure 1. Aztec Thrush (*Ridgwayia pinicola*), Huachuca Canyon, Cochise Co., Arizona, 30 May 1978.

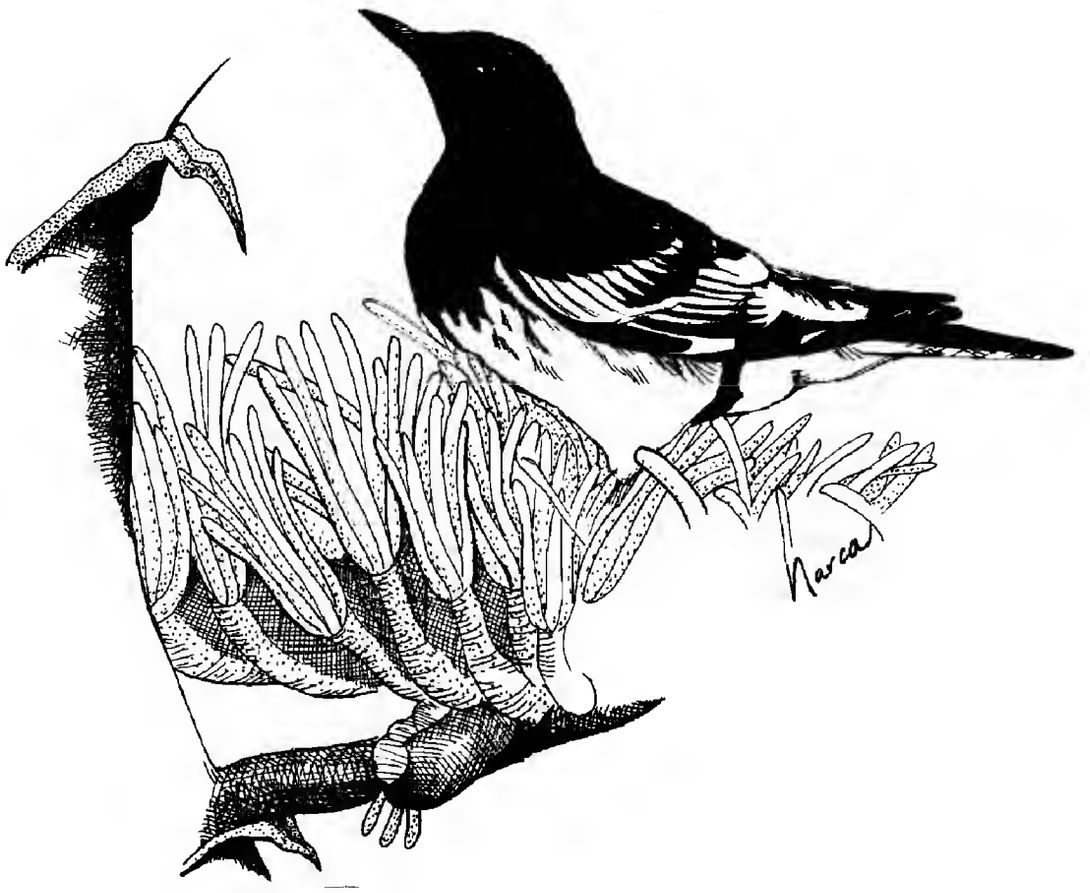
Photo by George Beringer

The bird disdained sunny areas. A seep that it used in the morning was never used in the full sun of the afternoon. Other seeps always shaded were used at any time of the day when it was feeding. It fed only in wet streamsides and seeps. The bird was not seen after 12-13 June, when public access to Huachuca Canyon was barred by the U.S. Army at Fort Huachuca due to the fire hazard. The thrush was not to be found when the restriction was lifted in July.

Photographs of the bird taken by Charles W. McMoran and George Beringer are on file in the Department of Ecology and Evolutionary Biology, University of Arizona, Tucson (UA Bird Collection 13651; Figure 1; Am. Birds 32:1042, 1978). This is the second record of Aztec Thrush for Arizona, and the third for the United States. The first Aztec Thrush recorded in the United States was an immature at Big Bend National Park, Texas, 21 August 1977 (Wolf, Am. Birds 32:156-157, 1978) . The first Arizona record was a female in Madera Canyon on 20 May 1978 (Witzeman et al., Am. Birds 32:1042, 1978). This endemic Mexican species is known to range as far north in the Sierra Madre Occidental as southwestern Chihuahua, about 750 km south of Huachuca Canyon (Miller et al., Pac. Coast Avif. 33, 1957).

I wish to thank Gale Monson for his help in the preparation of this note.

Accepted 15 November 1979



Sketch by Narca Moore

PINE CONES AS GRANARIES FOR ACORN WOODPECKERS

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Acorn Woodpeckers (*Melanerpes formicivorus*) are well known for storing acorns in communal storehouses or "granaries," which are usually in the trunk and main branches of a large tree. Other locations are sometimes used (e.g., fence posts, eaves of buildings), including sites from which the eventual retrieval of acorns is impossible (hollow trees, through open windows of cabins; Ritter, Condor 23:1-14, 1921; Henshaw, Condor 23:109-118, 1921; MacRoberts and MacRoberts, Ornithol. Monogr. 21, 1976). Under certain conditions holes or crevices of almost any size or shape may be sufficient to "release" storage behavior (Ritter, Scientific Monthly 31:253-257, 1930; Gignoux, Condor 23:118-121, 1972). This note reports acorn storage in pine cones. The location is particularly inappropriate because 1) the acorns are not retrievable, and 2) the storage site itself is of an impermanent and transitory nature.

In early January 1976 Jack Reveal informed me that several Coulter Pine (*Pinus coulteri*) cones found on the ground near a campground at Warner Hot Springs (elev. 1460 m), San Diego County, California, contained acorns. Because that area receives much human use, it seemed possible that this might have resulted from play of children. On 28 January we visited the area and inspected approximately 400 fallen cones in the area where the cones had been obtained. Only one contained acorns (7). It was found under a large isolated pine that stood near the middle of a meadow. The adjacent hillsides were composed of a mixed pine-oak assemblage, which included oaks of several species. Binocular inspection of attached cones—all well beyond the reach of humans—revealed no acorns, but this was not surprising given the fact that only upward-facing (and therefore unviewable) interstices might contain nuts.

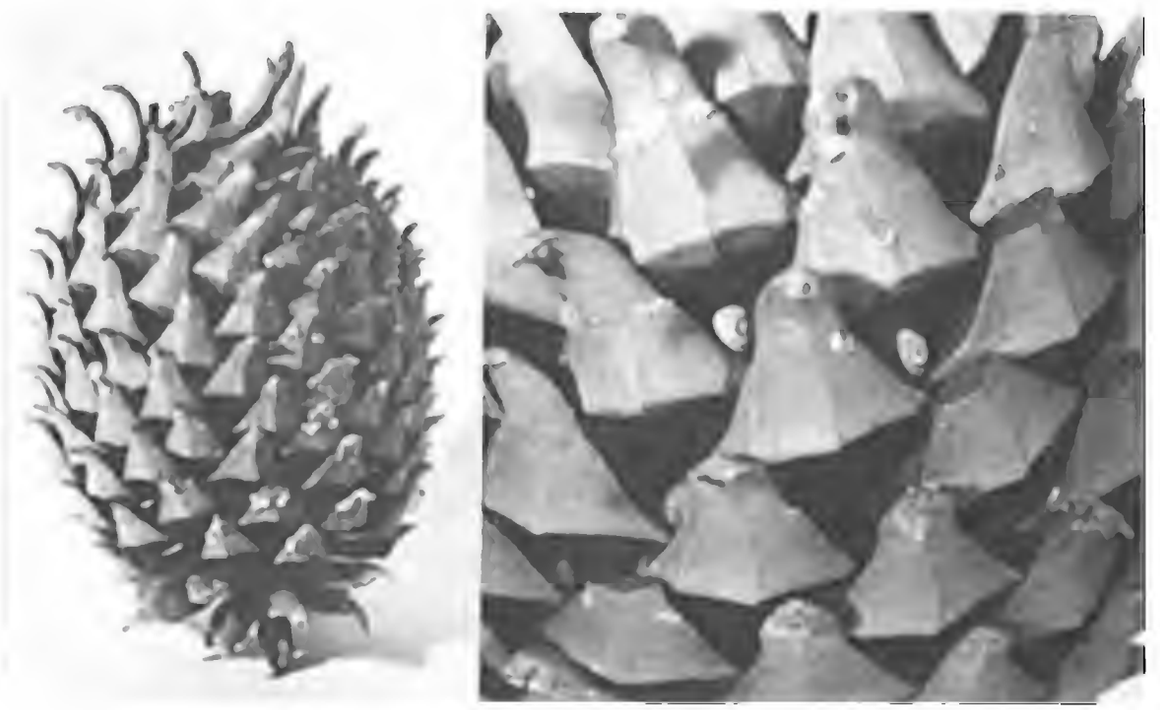

Figure 1. Cone of Coulter Pine (*Pinus coulteri*) used for acorn storage. On the right, two acorns (positioned for this photograph) can be seen between the scales.

With great inefficiency, revelry and diligence, we were eventually able to lasso four cones by standing on the roof of a truck. Three of these contained approximately 50, 60 and 100 acorns (Figure 1); the exact number could not be determined because some were lost as the cones crashed to the ground. All were of Coast Live Oaks (*Quercus agrifolia*). The caps had been removed; some had slight scratches or pitting on one end, presumably made by a woodpecker's bill. None showed evidence of having been pounded into place. The triangular openings between the scales were large (base, 10-25 mm; height, 10-15 mm; depth, ca. 40 mm), of more than sufficient size to accept an acorn with no additional work. Indeed, several large holes contained as many as four acorns.

The depth of the openings, which was effectively increased by the recurved spines on each scale, was such that most of the acorns were beyond the depth at which a woodpecker could probe. By using forceps of several sizes, I tried to extract the acorns. Failing completely, I obtained a pair of heavy scissors (15 cm blades), opened the tips slightly, and pounded repeatedly on the cone. I succeeded in making a few small dents but did not dislodge or loosen a scale. These experiments convinced me that most of the acorns could have been retrieved by a bird or mammal only after the cone had fallen or been destroyed.

On a subsequent trip in mid-March, S.I. Bond and I established that the area was inhabited by a single group of 5-6 woodpeckers. They concentrated their activities near an apparent nest cavity in a snag atop a large Coast Live Oak near the edge of the meadow. They were not particularly active, occasionally flycatching and sometimes flying to the adjacent hillsides and returning with acorns. The granary was in a snag atop a similar oak approximately 100 m from the "nest" tree. The Coulter Pine was approximately 60 m from each of these trees and formed the apex of a roughly equilateral triangle. In several hours, we never saw woodpeckers approach or land in the pine or show any interest in fallen cones, although Bond saw one bird extract an acorn from the granary and carry it to a nearby oak, where it was apparently stored. Observations under the granary revealed that several slabs of bark and large branches that had been used for storage had recently rotted and fallen to earth. W. Koenig (Ph.D. thesis, Univ. Calif., Berkeley, 1978) reported that granaries are used traditionally and are not easily replaced, thus forming a limited resource for the woodpecker. I suspect that the sudden shortage of suitable storage areas may have caused the birds to seek elsewhere in the immediate vicinity and to use the preformed holes in the cones. In years when acorn crops are large, the woodpeckers use suboptimal sites when the main storage areas are replete (W. Koenig pers. comm.).

It should be noted that the cones of Coulter Pines are exceptionally large, often exceeding 30 cm in length, and are the only ones that could accommodate acorns. W. Koenig has pointed out that the ranges of the pine and woodpecker overlap broadly. And since the cones may remain on the tree for a year or so after the scales open widely, it is conceivable that some acorns could be recovered. Thus, what seems to represent an interesting but biologically unimportant event may have broader significance than we can presently imagine. Perhaps it will be worthwhile to examine the interior of pine cones more closely. But, in my experience, it has been a little difficult to explain that you are "just looking for acorns."

I am indebted to Dr. Koenig for his comments on the manuscript.

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ADDITIONS TO THE BIRDS OF THE NEVADA TEST SITE

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Since the establishment of the Nevada Test Site (112 km NW of Las Vegas) in 1950, there has been only one comprehensive study of the birds in its 3,500 km². Hayward et al. (1963) published the first report, which resulted primarily from the collection of 900 specimens. More recently, the birds in a *Larrea-Ambrosia* community of southwestern NTS have been well documented by Herbert O. Hill (1971, 1972, 1973) under the International Biological Program/Desert Biome studies. The nature of work carried on here by the Energy Research and Development Administration (ERDA) makes it impossible to allow unrestricted access to ornithologistis.

A note by Banks and Hensen (1970) on some unusual birds at the Corn Creek Field Station of the Desert National Wildlife Range (77 km SE of NTS) states that the Las Vegas Valley may provide a natural flyway for migrating birds. If so, then NTS is a likely stopover for many of them. Indeed, the construction of sewage holding ponds and wells on NTS appears to have attracted many species and densities which would otherwise not be expected in the area. Goldfish (*Carassius auratus* and *Notemigonus crysoleucus*) occur in many of the ponds and wells. Great Blue Herons (*Ardea herodias*) have been observed feeding on these fish. Certain other birds must also take advantage of these stocked waters. We have seen as many as 191 waterfowl at one time on the 2.9 ha Mercury sewage ponds, located at the southern tip of NTS.

The following additions represent several years of casual observation at NTS. In future years more new species will undoubtedly be seen. Our records indicate that approximately 30 of the previously recorded 190 birds of NTS require revision as to seasonal and/or breeding status. More field work should be done, particularly in the northern portions of the Test Site.

Double-crested Cormorant (*Phalacrocorax auritus*). Mercury sewage ponds (MSP), one, March 1976 and one, March 1977.

Cattle Egret (*Bubulcus ibis*). One, MSP, 10-19 Aug 1977 (Lawson 1977: Figure 4).

Roseate Spoonbill (*Ajaia ajaja*). One immature, MSP, 5-6 June 1977; first Nevada record. Castetter approached bird to within 10 m and obtained several clear color photographs (photos on file at Museum of Biology, University of Nevada, Reno; Figure 1). Bird had a slight pinkish wash over wings and showed darker, more extensive pink on under wing coverts. On 6 June Susan Cochrane saw the spoonbill flying NE over Mercury Ridge, 4 km from the sewage ponds.

Whistling Swan (*Olor columbianus*). Rare winter visitor; two records for MSP: one adult and one immature, 15 Nov 1972 and one immature, 5-7 Dec 1976.

Snow Goose (*Chen caerulescens*). MSP, One, 12-22 Nov 1974 and two, 4 Apr 1977.

Gadwall (*Anas strepera*). Uncommon winter visitor; we have kept records for only two occurrences, both at MSP: 15 Nov 1975 (3 males, 9 females) and 29 Nov 1975 (1 male, 1 female).

Wood Duck (*Aix sponsa*). One pair, 4-8 Oct 1975.

Canvasback (*Aythya valisineria*). Common winter resident; records at MSP from October through May.

Ring-necked Duck (*A. collaris*). Common winter resident; records at MSP from September through April.

Common Merganser (*Mergus merganser*). Two males, 11 Aug 1975; one female, 7 Apr 1975; one female, 18-20 Mar 1977; all at MSP.

Goshawk (*Accipiter gentilis*). One immature, Shoshone Mountain, September 1976; status on NTS is unknown.

Bald Eagle (*Haliaeetus leucocephalus*). An adult spotted several times in Rock Valley on 16 Feb 1977 was twice seen eating road kill Black-tailed Jackrabbits (*Lepus californicus*).

Peregrine Falcon (*Falco peregrinus*). O'Farrell and Emery (1976:60) report a few sightings at Yucca Flat. No dates are given. We consider this report doubtful.

Willet (*Catoptrophorus semipalmatus*). Singles, 21 May 1976, 22 Apr and 11 Aug 1977.

Franklin's Gull (*Larus pipixcan*). One immature collected, MSP, 4 Aug 1977 (Nevada State Museum 1671). This is the third specimen for Nevada (Lawson 1977:85).

Forster's Tern (*Sterna forsteri*). Singles, 7 and 25 June 1975 and 18 Aug 1977.

Caspian Tern (*S. caspia*). One, MSP, 23 Jun 1975.

Black Tern (*Chlidonias niger*). Two, 11 Aug 1975; five observations of single birds, between 9 and 29 May 1977; six, 10 Aug 1977; all at MSP.

Scissor-tailed Flycatcher (*Muscivora forficata*). One, MSP, 26 Jun 1975. Banks and Hensen (1970) reported it at the Corn Creek Field Station nearly every year from 1960 to 1968.

Figure 1. Roseate Spoonbill (*Ajaia ajaja*), Mercury sewage ponds, Mercury, Nye Co., Nevada, 6 June 1977.

Photo by Richard C. Castetter

Red-breasted Nuthatch (*Sitta canadensis*). Fairly common on the mesas in September, October and December; possibly an autumn and winter resident.

Canyon Wren (*Catherpes mexicanus*). Fairly common in the higher elevations of NTS; most likely a summer resident, although we have records only for March-May.

Brown Thrasher (*Toxostoma rufum*). One, Mercury, 28 Sep 1975; color photograph on file (Museum of Biology, Univ. Nevada, Reno). In recent years there have been a number of sightings of this species in southern Nevada (Banks and Hensen 1970).

Black-tailed Gnatcatcher (*Polioptila melanura*). One male and two females, Rock Valley, 17 May 1971.

American Redstart (*Setophaga ruticilla*). One male, Cane Springs, 21 May 1977.

Red Crossbill (*Loxia curvirostra*). One, Ranier Mesa, 7 May 1977; status at NTS unknown.

We wish to thank the following people for their help on this note: Chuck Lawson, Auda Morrow, Michael P. Williams, Yvonne North and Linda Trevino.

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FLAMMULATED OWL NESTING IN A SQUIRREL BOX

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On 1 July 1977 an adult and two downy young Flammulated Owls (*Otus flammeolus*) were discovered in an artificial nest box in southeastern Utah. The nest box was 1 of 12 placed at various heights and exposures in selected Ponderosa Pines (*Pinus ponderosa*) to determine if Abert Squirrels (*Sciurus aberti*) would use artificially constructed nest sites. The boxes measured 30.5 cm × 30.5 cm × 50.8 cm, were constructed of pine, had a hinged, sloping roof and a 6.4 cm diameter entrance hole positioned 6.4 cm from the top of the box (Pederson et al., Habitat requirements of the Abert Squirrel on the Monticello District, Manti-LaSal National Forest of Utah, Utah Div. of Wildl. Res. Publ. No. 76-9, 108 p.). The occupied nest box was placed against the trunk of the Ponderosa at a height of 12.5 m and faced northeast. The tree, one of a clump of three left after the harvest, had a height of 19.8 m and a diameter at breast height of 35.6 cm. Examination of this box in 1974-1977 showed use by Abert Squirrels, Red Squirrels (*Tamiasciurus hudsonicus*) and Common Flickers (*Colaptes auratus*). When the box was examined again on 17 October 1977, no evidence of the adult or young was found. Successful fledging of the young is assumed.

The box was in Ponderosa Pine and Gambel Oak (*Quercus gambelii*) habitat approximately 9.6 km west of Monticello, Utah. This section of forest had been selectively harvested to open its canopy in the fall of 1973 and spring of 1975. The occurrence of the species in the forest of Ponderosa Pine conflicts with Karalus and Eckert's statements (The owls of North America, Doubleday, Garden City, NY, 1974:160) that the Flammulated Owl "avoids forest of Ponderosa Pine and areas of extensive forest cutting," but agrees with Winter's findings (West. Birds 5:25-44, 1974) of close association of these owls to Ponderosa Pine and Jeffrey Pine (*P. jeffreyi*) forests, including second growth forest.

This constitutes the fourth record of this species nesting in Utah. Hayward (Wilson Bull. 49:303-305, 1937) reported a female taken from a nest containing two downy young at Mule Flat, Mount Timpanogos, Utah County, on 3 July 1937. Bee and Hutchings (Great Basin Nat. 3:61-85, 1942) reported a female taken from a nest containing fresh eggs at Mutual Dell, Mount Timpanogos, 3 June 1934. Mosher and Woffinden (Ph.D. Thesis, Brigham Young Univ., Provo, Utah, 1975) listed the third record of Flammulated Owls breeding in Utah, but did not give the location of the nest.

To our knowledge, the only other use of an artificial nest structure by Flammulated Owls was in Bear Canyon in Arizona's Santa Catalina Mountains. A pair of Flammulated Owls was observed making feeding visits to a nest box at dusk. The box was attached about 7 m from the ground on the southern side of a Ponderosa Pine, (Steven M. Speich pers. comm.).

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